



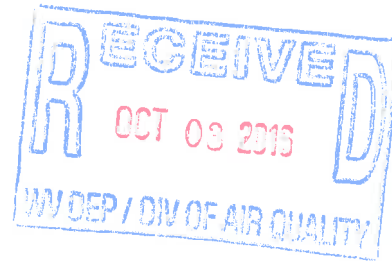
Ardagh Metal Packaging
3030 Birch Drive
Weirton, WV 26062
USA

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October 1, 2016

William F. Durham
Director
WV Department of Environmental Protection
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

Re: Title V Renewal/Modification Application
Ardagh Metal Packaging USA, Inc.
DAQ Plant ID No.: 009-00012



Mr. Durham:

Ardagh Metal Packaging USA, Inc. is submitting this Title V Permit Renewal Application for its Weirton Plant located at 3030 Birch Drive in Weirton, West Virginia for the renewal of permit R30-00900012-2012 which expires April 3, 2017.

The enclosed Title V Permit Renewal Application includes two hard copies and two electronic copies. The facility is requesting a modification of their Title V permit based on updates to their CAM Plan. A copy of Attachment H – Compliance Assurance Monitoring (CAM) Plan Form is included in the application and outlines the requested changes. These changes will effect conditions in R30-00900012-2012 that would not trigger revisions under Regulation 13. A red-line version of the Title V permit is included in the application (Appendix E).

If you have any questions or comments concerning the enclosed application, please contact the undersigned at (304) 797-1820 ext. 2232.

Sincerely,

Dave McClain
Plant Manager

Enclosure

CC: Corr File

Title V Permit Renewal and Modification Application

**Ardagh Metal Packaging USA, Inc.
3030 Birch Drive
Weirton, West Virginia**

October 2016



Prepared by:
NGE, LLC
171 Montour Run Road
Moon Township, PA 15108
(412) 722-1970
(412) 722-1929 FAX

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Section 1

Introduction

Ardagh Metal Packaging USA, Inc. (Ardagh) was issued a Title V renewal permit (R30-00900012-2012) for its Weirton, West Virginia facility on November 29, 2011. The permit expires on April 3, 2017. The permit requires that a renewal application be submitted to the West Virginia Department of Environmental Protection (WVDEP) Division of Air Quality (DAQ) by October 3, 2016. Ardagh is submitting this permit application to satisfy this requirement. Additionally, Ardagh would like to request to update the information in the current Title V permit to more accurately reflect present facility operations. Requested permit changes are outlined in Section 3 of the permit renewal application.

1.1 Purpose and Scope

Ardagh retained Novel Geo-Environmental, LLC (NGE) to assist in preparing the environmental documentation for this Title V Renewal Application. The purpose of this document is to satisfy the permitting requirements necessary to renew Ardagh's Title V permit. The application consists of a facility process description (Section 2), a description of requested permit changes (Section 3), a summary of air emissions and emissions calculations (Section 4 and Appendix C, respectively), a regulatory review (Section 5 and Appendix B), and completed West Virginia Department of Environmental Protection (WV DEP) Title V application forms (Appendix A).

1.2 Facility Location and Contact

The mailing address and contact for the Ardagh facility is as follows:

Ardagh Metal Packaging USA, Inc.
3030 Birch Drive
Weirton, West Virginia 26062

A site location map and a facility Plot Plan are provided in Attachments A and B of the Title V Permit Application forms provided in Appendix A.

The facility contact is as follows:

Mr. Dave McClain
Plant Manager
Dave.McClain@ardaghgroup.com
Phone: (304) 797-1820 x2232

The Ardagh contact for questions regarding the contents of this permit is:

Mr. Craig Walsh,

Environmental & Safety Manager

Craig.WALSH@ardaghgroup.com

Phone: (310) 519-2457

Section 2

Process Description

The Ardagh facility located in Weirton, West Virginia, is a metal coating plant, specializing in processed foods. The facility has an SIC Code 3411 and NAICS code 332431. The facility consists of one building, situated on approximately 2.7 acres and typically operates 24 hours a day, 365 days a week. A Plot Plan of the facility is provided in Appendix A. The existing air permit is broken up into four (4) coating lines, identified as Emission Units 1S, 2S, 17S and 18S. Emissions from these coating lines are controlled by three (3) thermal oxidation systems, identified as Emission Units 1C, 2C and 3C, and equipped with heat recovery. The coating lines (Line No. 1 through 4) include the coating operation and drying operations. Uncoated sheets of metal, varying in size, are fed through the line. The sheets are coated, dried and restacked. Coating Line No. 4 operates in line with the existing Litho Coating Line, identified as Emission Unit 31S. The Litho Coating Line is a printer, which prints on the sheet metal prior to the coating being applied.

The design capacity of each coating line is approximately 7,300 sheets per hour (7,500 sheets per hour for Coating Lines No. 3 and 4). These sheets are coated with the proper coating (interior or exterior) and quantity according to customer specifications. From the coating equipment, the sheets are roller fed to the drying oven.

All of the thermal oxidizers are fueled by natural gas. Capture and destruction efficiency testing was last conducted on December 6th through December 8th, 2011 to verify the effectiveness of the PTE and to confirm the destruction efficiency of the thermal oxidizers. The test confirmed that the PTE met the USEPA Method 204 criteria and 100% capture efficiency was achieved. In addition, destruction efficiencies and minimum combustion chamber temperatures for the thermal oxidizers were determined. Regulation 13 Permit R13-2410D and Title V permit R30-00900012-2012 require that the temperature of the combustion chamber of C1, associated with Coating Lines No. 1 and 2, be a minimum of 1400°F, and that a control efficiency of 95% be achieved. The temperature of the combustion chamber of C2, associated with Coating Line #3, is a minimum of 1350°F, and a control efficiency of 98% is required. The temperature of the combustion chamber of control device C3, associated with Coating Line No. 4, is a minimum of 1275°F, and a control efficiency of 99% is required. Approval to lower the combustion chamber temperature to 1275°F was granted through R13-2410D issued in July 2015 and Title V modification MM01 issued in November 2015. Stack testing was conducted on February 17, 2014 to confirm the destruction efficiency of the thermal oxidizer C3 at this temperature.

Emission points for C1 are identified as 4E (Preheat Exhaust Stack) and 5E (Heat Trunk Exhaust Stack) for Coating Line No.1 and 6E (Preheat Exhaust Stack) and 7E (Heat Trunk Exhaust Stack) for Coating Line No. 2. Emission points for C2 are identified as 23E and 24E. Emission points for C3 are identified as 28E and 29E. The exhaust for the Litho Line is identified as 31E and does not have control device.

Chemical coating arrive onsite in drums, totes or via bulk delivery, is used in large quantity. This application includes an updated list of coating in use at the facility. Some coatings listed in the coating use summary table in Section 4.1.7 of the Title V permit are obsolete, while new coatings have been added. Three (3) aboveground storage tanks, identified as Tank No 1 (EU 15S), Tank No. 2 (EU 16S) and Tank No.3 (EU 30S) contain various coatings (EUs 15S and 16S) and Glycol Ether (EU 30S). To allow for any coating type to be stored in EUs 15S or 16S, an emissions increase of VOCs was granted through R13-2410D issued in July 2015 and Title V modification for the bulk storage tanks.

The facility utilizes a maximum of 12,000 gallons per year of cleaning solvents for all coating lines. Cleaning operations are identified as EU 32S. A conservative release rate of 50% is assumed based on material balance calculations performed by the facility.

A permit determination was submitted in 2007 for the installation and operations of two (2) can end making lines (No. 5 and 6) and three (3) lubricators for can end making lines Nos. 1, 2 and 3. It was determined that a permit was not required under 45 CSR 13 for these sources. In 2008, a permit determination was submitted for the use of a new lubricant on can end making lines 1, 2 and 3. It was determined that a permit was not required under 45 CRS 13 for these sources, which are currently listed as insignificant in the application forms provided in Appendix A. These sources emit less than 1 lb/hour and 10,000 lbs/year of VOCs.

SDS and HAP Data Sheets for all chemicals not previously submitted are included in Appendix D.

A Process Flow Diagram are included in Appendix A.

Section 3

Facility and Permit Changes

Ardagh has completed the new WV DEP Title V application forms. The new forms have been revised to reflect present operations and include permit determination changes for the facility. Additionally, the submission also includes permit change requests. These requests include the modification of some permit condition terms and the transfer of some equipment to insignificant status. These changes are discussed in Subsections 3.1.

3.1 Permit Modifications

Ardagh would like to request the following modifications to the current permit language in order to provide for a more consistent and achievable compliance program:

Section 5.2 Monitoring Requirements 5.2.3, 5.2.4, and 5.2.5

Remove the text regarding an excursion is defined as when the combustion temperature readings are less than the minimum temperature when VOC and HAPs are being processed in the oxidizer, and replace with the following text:

Condition 5.2.3 - "The permittee shall record all periods (during actual coating operations) in which the average temperature in the incinerator remains below the limit set forth in Section 5.1.4 for a period in excess of 3 hours. A period of time meeting these aforementioned temperature and time criteria shall be deemed an excursion for purposes of 40 C.F.R. Part 64, thus initiating an inspection and evaluation, corrective action, recordkeeping and reporting requirement (permit conditions 5.2.8., 5.4.7., 5.5.2.). "

Condition 5.2.4 - "The permittee shall also record all periods (during actual coating operations) in which the average temperature in the incinerator remains below 1350°F for a period in excess of 3 hours. A period of time meeting these aforementioned temperature and time criteria shall be deemed an excursion for purposes of 40 C.F.R. Part 64, thus initiating an inspection and evaluation, corrective action, recordkeeping and reporting requirement (permit conditions 5.2.8., 5.4.7., 5.5.2.)."

Condition 5.2.5 - "The permittee shall also record all periods (during actual coating operations) in which the average temperature in the incinerator remains below 1275°F for a period in excess of 3 hours. A period of time meeting these aforementioned temperature and time criteria shall be deemed an excursion for purposes of 40 C.F.R. Part 64, thus initiating an inspection and evaluation, corrective action, recordkeeping and reporting requirement (permit conditions 5.2.8., 5.4.7., 5.5.2.)."

The definition of an excursion for each condition is being change to reflect the changes to the CAM plan. The appropriate changes and regulatory references are included in Attachment H.

Section 5.2 Recordkeeping Requirements (5.4.5)

Add the following recordkeeping requirements for data collection frequency and averaging following bullet point a.:

- b. The data collection frequency shall be at least one (1) data point read every sixty (60) seconds by a continuous electronic recorder. Fifteen (15) consecutive data points shall be averaged to generate one (1) recorded datum every complete 15-minute cycle, equivalent to four (4) data points equally spaced over one (1) hour.
- c. The permittee must determine the average of all recorded readings for each successive 3-hour period of the emission control device operation.

The data collection period and average is being change to reflect the changes to the CAM plan. The appropriate changes and regulatory references are included in Attachment H.

Sections 5.7, 5.8 and 5.9: CAM Plan Requirements for Thermal Oxidizer 1C, 2C, and 3C

Section III. Performance Criteria, D. Data Collection Procedure will now read: "Recorded continuously (Section 5.4.5.a.); reading is collected every 60 seconds."

Section III. Performance Criteria, D. Averaging Period remove the text "No average is taken" and add the text: "One averaging period is recorded every 15 minutes and four numbers are recorded per hour at evenly spaced intervals."

The data collection period and average is being change to reflect the changes to the CAM plan. The appropriate changes and regulatory references are included in Attachment H.

3.2 Permit Shield

Ardagh would like to request that the following permit shield remain in place for the facility through the permit renewal:

40 C.F.R. Part 60 Subpart TT (November 1, 1982)	Standards of Performance for Metal Coil Surface Coating defines metal coil surface coating operation as the application system used to apply an organic coating to the surface of any continuous metal strip with thickness of 0.15 millimeter or more that is packaged in a roll or coil. "This facility cuts the metal coils prior to coating, and as such, is not applicable to Subpart TT.
40 C.F.R. Part 63 Subpart KKKK (November 13, 2003)	National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Cans - The Ardagh USA's Weirton Plant is reducing their HAP emission limitations (per permit R13-2410B) by modifying

	their current use of coatings, cleaners, pastes and thinners to become a synthetic minor source under this subpart.
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A copy of the Permit Shield applicability summary is provided in Appendix B.

Section 4

Summary of Emissions

Ardagh Weirton facility emissions consist of both criteria pollutants (PM, NO_x, SO₂, CO, and VOCs) and HAPs. The facility is a major source of VOC and a synthetic minor source of HAPs. Emission calculations have been previously supplied in the original Title V application and yearly in the facility Emission Inventory. There are no requested changes to the emission limits set forth in Regulation 13 Permit R13-2410D and Title V permit R30-00900012-2012. Facility emissions are outlined in the application forms and PTE emissions calculations are included in Appendix C. The facility will continue to employ the use of three thermal oxidizers for Coating Lines 1, 2, 3 and 4 in order to minimize potential VOC and HAP emissions. Permanent total enclosure around Coating Lines 1, 2, 3 and 4 ensures 100% capture efficiency and limits fugitive emissions.

This section of the application provides a discussion of emission calculation methodology used for the emission sources at the Ardagh Weirton facility.

4.1 Coating Lines and Cleaning

Hourly emissions (lbs/hr) for all coating lines were calculated using the maximum operation capacity of each coating line (sheets/ hour), the application rate of each coating (gallons/ sheet), and the VOC or HAP density (lbs/gallon) of each coating applied. Controlled or stack emissions were calculated using 100% capture efficiency and the determined capture efficiency of the thermal oxidizer associated with each line. The requested permit limitation was based on the coating that results in the highest VOC and HAP emission rate.

Hourly emission (lbs/hr) for cleaning operations were calculated using the maximum hourly usage of each cleaning solvent (gallons/hr) and the VOC and HAP density (lbs/gallon) of each solvent used. A 50% loss rate was used for cleaning solvents based on material balance. Annual emissions were calculated similarly by using the maximum annual usage (gallons/yr) of each cleaning solvent.

Annual emissions for the coating lines and cleaning process were calculated multiplying the maximum usage rate (gallons/yr) and the VOC or HAP density (lbs/gallon) of each coating. The lowest or worst case destruction efficiency (95%) was used for calculating controlled or stack emissions. These potential emissions from the use of each coating and cleaning solvent were summed to get the total VOCs, total HAP, and total individual HAP emissions in tons/yr.

The PTE calculation in Appendix C are a snapshot of the various coatings that the facility currently uses or anticipates using in the future based on customer request. The types and amounts of coating can vary throughout the year, which is why the facility would like to continue to keep the same VOC

limitations as in the current operating permit. Additionally, the permit requests to keep individual HAP limit of 10 ton/yr and total HAP limit of 25 ton/yr, speciated HAP PTE is provided under the Annual Coating Emissions.

4.2 Printing Operations

Hourly emissions for the printing operations were calculated by using the maximum hourly and annual usage rates and the VOC and HAP density of the worst case ink. There are two main product lines used at the Ardagh Weirton facility, in addition to the UV Black ink (primary material used for printing operations). Both hourly and annual emissions are based on the sum of the worst case ink from each product line.

4.3 Tank Sources

The total VOC emissions for each bulk storage tank were estimated by using Tanks 4.0.9d. The coatings stored in Bulk Tanks #1 and #2 may vary. The coating with the highest HAP content was used for the purposes of calculating the emissions. The emissions for Tanks #1 and #2 were calculated using a single chemical with the highest vapor pressure of the mixture. The emissions for Tank #3 were calculated using a single chemical (2-n-Butoxy-1-ethanol). It is assumed that the total output from Tanks 4.0.9d represents the total VOC emissions from the tanks. To estimate the total HAP emissions from the tanks, it is assumed that the VOC's emissions have the same weight percent of HAPS as does the liquid.

4.4 Combustion Sources

For the combustion sources (thermal oxidizers) appropriate AP-42 emission factors and heat input values were used to determine annual and hourly emission rates for all criteria pollutants and HAPs.

Section 5

Regulatory Review

The Ardagh Weirton facility is a major source for Title V. Based on this renewal application, Ardagh wishes to maintain its Title V status. The facility information collected and provided in this application was used to provide an outline of the applicability of both federal and state regulations. This outline identifies many of the regulations that are applicable or may be applicable to the facility. An exhaustive list of regulations and their applicability are provided in the Permit Shield review in Attachment B.

5.1 Regulation 45CSR4 (Objectionable Odor)

According to 45 CSR 4-3, no person shall cause suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public. The Ardagh Weirton facility is subject to this requirement per Condition 3.1.4 of the permit. The facility will maintain appropriate records and take appropriate response measures of all odor complaints.

5.2 Regulation 45CSR6 (Control of Air Pollution from Combustion of Refuse)

The facility has three thermal oxidizers that emit PM from the combustion of natural gas. The facility is subject to Regulation 45CSR6, which establishes emission standards for particulate matter and requirements for activities involving incineration. The requirements and limitations are covered in Section 3.1.1 and 3.1.2 of the permit prohibiting open burning, as well as Section 5.0 regarding source-specific requirements for the thermal oxidizers. The emissions from each control device are well below the maximum PM emission rates outlined in Section 5.1.1 of the permit.

5.3 Regulation 45CSR7 (Prevent and Control PM from Manufacturing Processes)

The facility has three thermal oxidizers that emit PM from the combustion of natural gas. The limits are based on the maximum natural gas consumption rates for each thermal oxidizer. The emissions from each control device are well below the maximum PM emission rates outlined in Section 5.1.1 of the permit.

5.4 Regulation 45CSR10 (Prevent and Control PM from the Emissions of Sulfur Oxide)

The facility has three thermal oxidizers that emit sulfur oxide from the combustion of natural gas. The limits are based on the maximum natural gas consumption rates for each thermal oxidizer. The

emissions from each control device are well below the maximum sulfur oxide emission rates outlined in Section 5.1.1 of the permit.

5.5 Regulation 45CSR11 (Prevention of Air Pollution Emergency Episodes)

This requirement is covered in Condition 3.1.5 of the permit. Upon request of the Director, Ardagh shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11. The preparation of standby plan has not been requested by the department since issuing this permit.

5.6 Regulation 45CSR13 (New Source Review Permits for Stationary Sources)

Any additions at the facility are reviewed to determine if they trigger Regulation 45CSR13 permitting. This review is completed by reviewing the potential increase in emissions to determine if they exceed both 6 lbs per hour and 10 tons per year of emissions of any criteria pollutant and both 2 lbs per hour and 5 tons per year of any HAP. If the addition is below the permitting thresholds to require a Regulation 45 CSR 13 permit application, then a Permit Determination will be completed for the addition.

5.7 Regulation 45CSR14 (Prevention of Significant Deterioration)

Ardagh is a major source under the Prevention of Significant Deterioration (PSD) regulation. Due to the facility's major source status, there are emission limits for criteria pollutants that cannot be broken without extensive permitting requirements. The addition of any new equipment requires a review of 45CSR14 to verify that PSD is not triggered.

5.8 Regulation 45CSR19 (New Source Review)

Ardagh is a major source under the New Source Review (NSR) regulation. The facility is located in Weirton, West Virginia, which is a non-attainment area for PM 2.5 only. NSR only applies in areas of non-attainment. In areas of attainment, PSD takes precedence. Therefore, NSR is not applicable at this time. Any additions at the facility will be reviewed to determine if they trigger Regulation 45CR19 for PM 2.5.

5.9 West Virginia Code 22-5-4 (a) (Emissions Inventory)

The facility is responsible for submitting, on an annual basis, an emissions inventory in accordance with the submittal requirements of the Division of Air Quality.

5.10 Regulation 45CSR30 (Title V)

Ardagh presently operates under Title V permit R30-00900012-2012. This submittal is being provided to meet the requirements for a renewal application.

5.11 Federal 40 CFR Part 60 (NSPSs, Regulation 45CSR16)

New Source Performance Standards (NSPS) require new, modified, or reconstructed sources to control emissions to the level achievable by the best demonstrated technology as specified in the applicable provisions. The only subpart potentially applicable to the Ardagh Weirton facility is 40 CFR Part 60 Subpart TT, Standards of Performance for Metal Coil Surface Coating. However, 40 CFR Part 60 Subpart TT defines metal coil surface coating operation as the application system used to apply an organic coating to the surface of any continuous metal strip with thickness of 0.15 millimeter or more that is packaged in a roll or coil. The Weirton facility cuts the metal coils prior to coating, and as such, is not applicable to Subpart TT.

5.12 Federal 40 CFR Part 61 (NESHAPs)

Part 61 is applicable to facilities that have the potential to emit certain hazardous air pollutants listed under the Subpart A, General Provisions. No hazardous air pollutants listed 40CFR Part 61 regulations are present at the Ardagh Weirton facility, with the exception of asbestos. The facility is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 CFR 61.145, 40 CFR 61.148 and 40 CFR 61.150.

5.13 Federal 40 CFR Part 63 (NESHAPs/MACT, Regulation 45CSR34)

Part 63 National Emission Standards for Hazardous Air Pollutants (NESHAPs) emission limits are established on the basis of a maximum achievable control technology (MACT) determination for a particular major source. A HAP major source is defined as having potential emissions in excess of 25 tons per year (tpy) of total HAPs and/or potential excess of 10 tpy for any individual HAP. Ardagh Weirton was a major source of HAPs under Title V and was subject to the Part 63 for Surface Coating of Metal Cans. However, the Ardagh facility has reduced their HAP emission limitations per permit R13-2410B by modifying their current use of coatings, cleaners, pastes and thinners to become a synthetic minor source under this subpart. The facility evaluates its synthetic minor status for HAP emissions on a regular basis to ensure it maintains synthetic minor status.

5.14 Federal 40 CFR Part 64 (Continuous Assurance Monitoring)

Under 40 CFR Part 64, the Continuous Assurance Monitoring (CAM) regulations applies to emission units that use a control device to achieve compliance with an emission limit and whose pre-controlled emission levels exceed the major source thresholds under the Title V operating permit program. The facility is applicable to 40 CFR Part 64 and CAM requirements are outlined in Sections 5.7 through 5.9 of the facility's air permit. The facility is requesting changes to the CAM Plan; therefore, the facility is submitting additional information under Attachment H of the permit application forms presented in Appendix A.

5.15 Federal 40 CFR Part 68 (Risk Management Plan)

Subpart B of 40 CFR 68 outlines requirements for risk management prevention plans pursuant to Section 112(r) of the Clean Air Act. Applicability of the subpart is determined based on the type and quantity of chemicals stored at a facility. Ardagh currently does not maintain any regulated substances above the threshold quantity for applicability to 40 CFR Part 68. According to Section 3.1.8 of the permit should this stationary source, become subject to Part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in 40 C.F.R. § 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 C.F.R. Part 70 or 71.

5.16 Federal 40 CFR Part 82 (Ozone Depleting Substances)

Subparts A through E and Subparts G and H of 40 CFR Part 82 are not applicable to the Ardagh Weirton facility. Subpart F potentially applies if the facility operates, maintains, repairs, services or disposes of appliances that utilize Class I or Class II ozone depleting substances. The Ardagh Weirton facility complies with the general duty clause; however, the facility currently does not maintain any appliances with ozone depleting substances onsite. Should the facility obtain appliances that utilize Class I or Class II ozone depleting substances, an applicability determination will be conducted.

Appendix A
Title V Application Forms

Title V Permit Renewal Application Forms

**Ardagh Metal Packaging USA, Inc.
3030 Birch Drive
Weirton, West Virginia**

October 2016



Prepared by:
NGE, LLC
171 Montour Run Road
Moon Township, PA 15108
(412) 722-1970
(412) 722-1929 FAX

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SECTION 1-6

GENERAL FORMS



**WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL
PROTECTION**

DIVISION OF AIR QUALITY

601 57th Street SE

Charleston, WV 25304

Phone: (304) 926-0475

www.dep.wv.gov/daq

INITIAL/RENEWAL TITLE V PERMIT APPLICATION - GENERAL FORMS

Section 1: General Information

1. Name of Applicant (As registered with the WV Secretary of State's Office): Ardagh Metal Packaging USA, Inc	2. Facility Name or Location: Weirton Plant
3. DAQ Plant ID No.: 03-54-00900012	4. Federal Employer ID No. (FEIN): 25-186-4585
5. Permit Application Type: <input type="checkbox"/> Initial Permit <input checked="" type="checkbox"/> Permit Renewal/Modification <input type="checkbox"/> Update to Initial/Renewal Permit Application When did operations commence? MM/DD/YYYY What is the expiration date of the existing permit? 04/03/2017	
6. Type of Business Entity: <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Governmental Agency <input type="checkbox"/> LLC <input type="checkbox"/> Partnership <input type="checkbox"/> Limited Partnership	7. Is the Applicant the: <input type="checkbox"/> Owner <input type="checkbox"/> Operator <input checked="" type="checkbox"/> Both If the Applicant is not both the owner and operator, please provide the name and address of the other party. _____ _____ _____
8. Number of onsite employees: 70	
9. Governmental Code: <input checked="" type="checkbox"/> Privately owned and operated; 0 <input type="checkbox"/> County government owned and operated; 3 <input type="checkbox"/> Federally owned and operated; 1 <input type="checkbox"/> Municipality government owned and operated; 4 <input type="checkbox"/> State government owned and operated; 2 <input type="checkbox"/> District government owned and operated; 5	
10. Business Confidentiality Claims Does this application include confidential information (per 45CSR31)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, identify each segment of information on each page that is submitted as confidential, and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's "PRECAUTIONARY NOTICE-CLAIMS OF CONFIDENTIALITY" guidance.	

11. Mailing Address		
Street or P.O. Box: 3030 Birch Drive		
City: Weirton	State: WV	Zip: 26062
Telephone Number: (304) 797-1820	Fax Number: (304) 797-0518	

12. Facility Location		
Street: 3030 Birch Drive	City: Weirton	County: Brooke
UTM Easting: 531.834 km	UTM Northing: 4,470.823 km	Zone: <input checked="" type="checkbox"/> 17 or <input type="checkbox"/> 18
Directions: Located at Half Moon Industrial Park-US Route 22 to Half Moon Road to Signode Road		
Portable Source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Is facility located within a nonattainment area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		If yes, for what air pollutants? PM 2.5
Is facility located within 50 miles of another state? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		If yes, name the affected state(s). Ohio Pennsylvania
Is facility located within 100 km of a Class I Area¹? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If no, do emissions impact a Class I Area¹? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		If yes, name the area(s).
¹ Class I areas include Dolly Sods and Otter Creek Wilderness Areas in West Virginia, and Shenandoah National Park and James River Face Wilderness Area in Virginia.		

13. Contact Information		
Responsible Official: Dave McClain		Title: Plant Manager
Street or P.O. Box: 3030 Birch Drive		
City: Weirton	State: WV	Zip: 26062
Telephone Number: (304) 297-1820	Fax Number: (304) 797-0518	
E-mail address: dave.mcclain@ardaghgroup.com		
Environmental Contact: Craig Walsh		Title: EHS Manager
Street or P.O. Box: 936 Barracuda Street		
City: Terminal Island	State: CA	Zip: 90731
Telephone Number: (310) 519-2448	Fax Number: (310) 519-2457	
E-mail address: craig.walsh@ardaghgroup.com		
Application Preparer: Melissa Vargo		Title: Project Manager
Company: Novel Geo-Environmental LLC		
Street or P.O. Box: 171 Montour Run Rd		
City: Moon Township	State: PA	Zip: 15108
Telephone Number: (412) 722-1970	Fax Number: (412) 722-1929	
E-mail address: mvargo@ngeconsulting.com		

14. Facility Description

List all processes, products, NAICS and SIC codes for normal operation, in order of priority. Also list any process, products, NAICS and SIC codes associated with any alternative operating scenarios if different from those listed for normal operation.

Process	Products	NAICS	SIC
Can Coating and End Making	Coated Sheets for Can Making and Can Ends	332431	3411

Provide a general description of operations.

The Weirton Plant has four (4) coating lines with three thermal oxidation systems with heat recovery. The operating lines (Line Nos. 1 through 4) include the coating operation, drying operation, and the emission control. The equipment is fed uncoated sheets of metal, applies the coating, dries the coating, and restacks the sheets. Line No. 4 also operates in line with the existing Litho Coating Line. The Litho Coating Line is a printer, which prints on the sheet metal prior to the coating being applied in the coating portion of the operation. The facility receives rolls of sheet metal, cuts the sheets, prints and coats the sheets, dries the coatings and then restacks the sheets. The coated sheets are the final product. The site also makes can ends from the sheet metal. The facility has the potential to operate twenty-four (24) hours per day, seven (7) days per week and fifty-two (52) weeks per year. The facility consists of a cutting area, a coating area with four sheet coaters, four ovens, and three incinerators, and an end press area with six end stampers

15. Provide an **Area Map** showing plant location as **ATTACHMENT A**.

16. Provide a **Plot Plan(s)**, e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is located as **ATTACHMENT B**. For instructions, refer to "Plot Plan - Guidelines."

17. Provide a detailed **Process Flow Diagram(s)** showing each process or emissions unit as **ATTACHMENT C**. Process Flow Diagrams should show all emission units, control equipment, emission points, and their relationships.

Section 2: Applicable Requirements

18. Applicable Requirements Summary	
Instructions: Mark all applicable requirements.	
<input type="checkbox"/> SIP	<input type="checkbox"/> FIP
<input checked="" type="checkbox"/> Minor source NSR (45CSR13)	<input type="checkbox"/> PSD (45CSR14)
<input type="checkbox"/> NESHAP (45CSR34)	<input type="checkbox"/> Nonattainment NSR (45CSR19)
<input checked="" type="checkbox"/> Section 111 NSPS	<input type="checkbox"/> Section 112(d) MACT standards
<input type="checkbox"/> Section 112(g) Case-by-case MACT	<input type="checkbox"/> 112(r) RMP
<input type="checkbox"/> Section 112(i) Early reduction of HAP	<input type="checkbox"/> Consumer/commercial prod. reqts., section 183(e)
<input type="checkbox"/> Section 129 Standards/Reqts.	<input type="checkbox"/> Stratospheric ozone (Title VI)
<input type="checkbox"/> Tank vessel reqt., section 183(f)	<input type="checkbox"/> Emissions cap 45CSR§30-2.6.1
<input type="checkbox"/> NAAQS, increments or visibility (temp. sources)	<input type="checkbox"/> 45CSR27 State enforceable only rule
<input checked="" type="checkbox"/> 45CSR4 State enforceable only rule	<input type="checkbox"/> Acid Rain (Title IV, 45CSR33)
<input type="checkbox"/> Emissions Trading and Banking (45CSR28)	<input checked="" type="checkbox"/> Compliance Assurance Monitoring (40CFR64)
<input type="checkbox"/> CAIR NO _x Annual Trading Program (45CSR39)	<input type="checkbox"/> CAIR NO _x Ozone Season Trading Program (45CSR40)
<input type="checkbox"/> CAIR SO ₂ Trading Program (45CSR41)	

19. Non Applicability Determinations

List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.

The non-applicability determination contained in the existing permit remains unchanged

Ardagh would like to request that the following permit shield remain in place for the facility through the permit renewal.

40 C.F.R. Part 60 Subpart TT (November 1, 1982)	Standards of Performance for Metal Coil Surface Coating defines metal coil surface coating operation as the application system used to apply an organic coating to the surface of any continuous metal strip with thickness of 0.15 millimeter or more that is packaged in a roll or coil. "This facility cuts the metal coils prior to coating, and as such, is not applicable to Subpart TT.
40 C.F.R. Part 63 Subpart KKKK (November 13, 2003)	National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Cans - The Ardagh USA's Weirton Plant is reducing their HAP emission limitations (per permit R13-2410B) by modifying their current use of coatings, cleaners, pastes and thinners to become a synthetic minor source under this subpart.

A copy of the Permit Shield applicability summary is provided in Appendix B.

☒ Permit Shield

19. Non Applicability Determinations (*Continued*) - Attach additional pages as necessary.

List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.

☐

Permit Shield

20. Facility-Wide Applicable Requirements

List all facility-wide applicable requirements. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements).

All references to Title V (TV) Permit Condition in section 20 refers to Permit Number R30-00900012-2012 condition numbers

Open Burning: CSR § 45-6-3.1	(TV Permit Condition 3.1.1)
Open Burning Exemption: CSR § 45-6-3.2	(TV Permit Condition 3.1.2)
Asbestos: 40 CFR 61 and CSR § 4515	(TV Permit Condition 3.1.3)
Odor: CSR § 45-4-3.1	(TV Permit Condition 3.1.4)
Standby Plan for Reducing Emissions: CSR § 45-11-5.2	(TV Permit Condition 3.1.5)
Emission Inventory: W.Va. Code § 22-5-4(a)(14)	(TV Permit Condition 3.1.6)
Ozone-depleting Substances: 40 C.F.R. Part 82, Subpart F	(TV Permit Condition 3.1.7)
Risk Management Plan: 40 C.F.R. Part 68	(TV Permit Condition 3.1.8)
Compliance with Permit Application R13-2410C: CSR § 45-13	(TV Permit Condition 3.1.9)

☒ Permit Shield

For all facility-wide applicable requirements listed above, provide monitoring/testing / recordkeeping / reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Open Burning: Open Burning shall be prohibited (CSR § 45-6-3.1, TV Permit Condition 3.1.1).

Open Burning Exemption: Notification will be sent if open burning occurs (CSR § 45-6-3.2, TV Permit Condition 3.1.2).

Asbestos: Must notify the Secretary at least ten working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary per notification requirements of 40 CFR §61.145(b)(3)(i). Prior to demolition or construction, buildings will be inspected for asbestos (40 CFR 61 and CSR § 4515, TV Permit Condition 3.1.3).

Odor: Permittee shall prohibit the emission of any pollutant(s) which may cause objectionable odor in a public location (CSR § 45-4-3.1, TV Permit Condition 3.1.4).

Standby Plan for Reducing Emissions: If requested by the Supervisor, permittee shall prepare a standby plan (CSR § 45-11-5.2, TV Permit Condition 3.1.5).

Emission Inventory: Permittee shall submit, on an annual basis, an emission inventory in accordance with the submittal requirement of the Division of Air Quality (W.Va. Code § 22-5-4(a)(14), TV Permit Condition 3.1.6).

Ozone-depleting Substances: Permittee will prohibit the maintenance, service, repair, or disposal of appliance containing ozone-depleting substances (40 C.F.R. Part 82, Subpart F, TV Permit Condition 3.1.7).

Risk Management Plan: Should the facility become subject to 40 CFR 68, the owner/operator will submit a risk management plan (40 C.F.R. Part 68, TV Permit Condition 3.1.8).

Compliance with Permit Application R13-2410D: Permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application R13-2410D (CSR § 45-13, TV Permit Condition 3.1.9).

Are you in compliance with all facility-wide applicable requirements? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

20. Facility-Wide Applicable Requirements (Continued) - Attach additional pages as necessary.

List all facility-wide applicable requirements. For each applicable requirement, include the rule citation and/or permit with the condition number.

All references to a TV Permit Condition in section 20 refer to Permit Number R30-00900012-2012 condition numbers.

Stack Testing: WV Code § 22-5-4(a)(15) and CSR § 45-13	(TV Permit Condition 3.3.1)
Monitoring Information: CSR§ 45-30-5.1.c.2.A.	(TV Permit Condition 3.4.1)
Retention of Records: CSR § 45-30-5.1.c.2.A.	(TV Permit Condition 3.4.2)
Odors: CSR § 45-30-5.1.c	(TV Permit Condition 3.4.3)
Responsible Official: CSR § 45-30-4.4 and 5.1.c.3.D	(TV Permit Condition 3.5.1)
Confidential Treatment: CSR § 45-30-5.1.c.3.E	(TV Permit Condition 3.5.2)
Certified Emissions Statement: CSR § 45-30-8	(TV Permit Condition 3.5.4)
Compliance Certification: CSR § 45-30-5.3.e	(TV Permit Condition 3.5.5)

☒ Permit Shield

For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Stack Testing: Stack testing is conducted in accordance with the 2006 Title V Permit and the Secretary may choose to witness any stack testing (TV Permit Condition 3.3.1). The Secretary may approve or specific additional or alternative testing (TV Permit Conditions 3.3.1a and 3.3.1b). All stack testing shall be conducted in accordance with approved test protocols. Protocols shall be submitted to the Secretary in writing at least 30 days prior to testing for approval. The Secretary must be notified 15 days prior to testing (TV Permit Condition 3.3.1c). (WV Code § 22-5-4 (a) (15) and CSR § 45-13, TV Permit Condition 3.3.1).

Monitoring Information: Permittee shall keep records of monitoring information including: date and place of sampling, date of analyses, company performance analyses, analytical techniques or methods, results of the analyses, and operating conditions at time of sampling (CSR§ 45-30-5.1.c.2.A., TV Permit Condition 3.4.1).

Retention of Records: Permittee shall retain records of all required monitoring data and support information for at least 5 years (CSR § 45-30-5.1.c.2.A., TV Permit Condition 3.4.2).

Odors: Permittee shall maintain a record of all odor complaints received, any investigation performance in response, and any responsive actions taken (CSR § 45-30-5.1.c, TV Permit Condition 3.4.3).

Responsible Official: Any application form, report, or compliance certification required by permit to be submitted to the DAQ or USEPA shall contain a certification by the responsible official (CSR § 45-30-4.4 and 5.1.c.3.D, TV Permit Condition 3.5.1).

Confidential Treatment: Permittee may request confidential treatment for the submission of reporting (CSR § 45-30-5.1.c.3.E , TV Permit Condition 3.5.2).

Certified Emissions Statement: Permittee shall submit a certified emissions statement and pay fees on an annual basis (CSR § 45-30-8, TV Permit Condition 3.5.4).

Compliance Certification: The permittee shall certify compliance with the conditions of this permit annually on the forms provided by the DAQ (CSR § 45-30-5.3.e , TV Permit Condition 3.5.5).

Are you in compliance with all facility-wide applicable requirements? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

20. Facility-Wide Applicable Requirements (Continued) - Attach additional pages as necessary.

List all facility-wide applicable requirements. For each applicable requirement, include the rule citation and/or permit with the condition number.

All references to a TV Permit Condition in section 20 refer to Permit Number R30-00900012-2012 condition numbers.

Semi-annual Monitoring Reports: CSR§ 45-30-5.1.c.3.A (TV Permit Condition 3.5.6)

Deviation Reports: CSR§ 45-30-5.1.c.3.C (TV Permit Condition 3.5.8)

New Applicable Requirements: CSR § 45-30-4.3.h.1.B (TV Permit Condition 3.5.9)

☒ Permit Shield

For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Semi-annual Monitoring Reports: The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4. [45CSR§30-5.1.c.3.A., TV Permit Condition 3.5.6]

Deviation Reports:

In addition to monitoring reports required by this permit, the permittee shall promptly submit supplemental reports and notices in accordance with the following:

1. Any deviation resulting from an emergency or upset condition, as defined in 45CSR§30-5.7., shall be reported by telephone or telefax within one (1) working day of the date on which the permittee becomes aware of the deviation, if the permittee desires to assert the affirmative defense in accordance with 45CSR§30-5.7. A written report of such deviation, which shall include the probable cause of such deviations, and any corrective actions or preventative measures taken, shall be submitted and certified by a responsible official within ten (10) days of the deviation.
2. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or telefax. A written report of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.
3. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.
4. All reports of deviations shall identify the probable cause of the deviation and any corrective actions or preventative measures taken.

[45CSR§30-5.1.c.3.C. TV Permit Condition 3.5.8]

The permittee shall, in the reporting of deviations from permit requirements, including those attributable to upset conditions as defined in this permit, report the probable cause of such deviations and any corrective actions or preventive measures taken in accordance with any rules of the Secretary. [45CSR§30-5.1.c.3.B. TV Permit Condition 3.5.8]

New Applicable Requirements: If any applicable requirement is promulgated during the term of this permit, the permittee will meet such requirements on a timely basis. (CSR § 45-30-4.3.h.1.B, TV Permit Condition 3.5.9).

Are you in compliance with all facility-wide applicable requirements? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

21. Active Permits/Consent Orders

[illegible]

22. Inactive Permits/Obsolete Permit Conditions

[illegible]

Section 3: Facility-Wide Emissions

23. Facility-Wide Emissions Summary [Tons per Year]	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	9.94
Nitrogen Oxides (NO _x)	9.19
Lead (Pb)	NA
Particulate Matter (PM _{2.5}) ¹	0.9
Particulate Matter (PM ₁₀) ¹	0.9
Total Particulate Matter (TSP)	0.9
Sulfur Dioxide (SO ₂)	0.08
Volatile Organic Compounds (VOC)	142.66
Hazardous Air Pollutants ²	Potential Emissions
Total HAPs	24.39
Individual HAPs*	*See Emissions Calculations in Appendix C
Regulated Pollutants other than Criteria and HAP	Potential Emissions
None	
¹ PM _{2.5} and PM ₁₀ are components of TSP. ² For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.	

Section 4: Insignificant Activities

24. Insignificant Activities (Check all that apply)	
<input checked="" type="checkbox"/>	1. Air compressors and pneumatically operated equipment, including hand tools.
<input type="checkbox"/>	2. Air contaminant detectors or recorders, combustion controllers or shutoffs.
<input checked="" type="checkbox"/>	3. Any consumer product used in the same manner as in normal consumer use, provided the use results in a duration and frequency of exposure which are not greater than those experienced by consumer, and which may include, but not be limited to, personal use items; janitorial cleaning supplies, office supplies and supplies to maintain copying equipment.
<input checked="" type="checkbox"/>	4. Bathroom/toilet vent emissions.
<input type="checkbox"/>	5. Batteries and battery charging stations, except at battery manufacturing plants.
<input checked="" type="checkbox"/>	6. Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents. Many lab fume hoods or vents might qualify for treatment as insignificant (depending on the applicable SIP) or be grouped together for purposes of description.
<input type="checkbox"/>	7. Blacksmith forges.
<input type="checkbox"/>	8. Boiler water treatment operations, not including cooling towers.
<input checked="" type="checkbox"/>	9. Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
<input type="checkbox"/>	10. CO ₂ lasers, used only on metals and other materials which do not emit HAP in the process.
<input checked="" type="checkbox"/>	11. Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
<input checked="" type="checkbox"/>	12. Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
<input checked="" type="checkbox"/>	13. Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
<input type="checkbox"/>	14. Demineralized water tanks and demineralizer vents.
<input type="checkbox"/>	15. Drop hammers or hydraulic presses for forging or metalworking.
<input type="checkbox"/>	16. Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.
<input type="checkbox"/>	17. Emergency (backup) electrical generators at residential locations.
<input type="checkbox"/>	18. Emergency road flares.
<input checked="" type="checkbox"/>	<p>19. Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, NO_x, SO₂, VOC and PM) into the atmosphere at a rate of less than 1 pound per hour and less than 10,000 pounds per year aggregate total for each criteria pollutant from all emission units.</p> <p>Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis:</p> <p><u>Three (3) Can End Making Lines with Lubricators (No. 1, 2, 3) (0.49 lbs/hr and 2.15 tons/yr each for each line)</u></p> <p><u>Three (3) Can End Making Lines (No 4, 5, 6) No VOC emissions</u></p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>

24. Insignificant Activities (Check all that apply)	
<input type="checkbox"/>	<p>20. Emission units which do not have any applicable requirements and which emit hazardous air pollutants into the atmosphere at a rate of less than 0.1 pounds per hour and less than 1,000 pounds per year aggregate total for all HAPs from all emission sources. This limitation cannot be used for any source which emits dioxin/furans nor for toxic air pollutants as per 45CSR27.</p> <p>Please specify all emission units for which this exemption applies along with the quantity of hazardous air pollutants emitted on an hourly and annual basis:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>
<input type="checkbox"/>	21. Environmental chambers not using hazardous air pollutant (HAP) gases.
<input checked="" type="checkbox"/>	22. Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.
<input type="checkbox"/>	23. Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.
<input checked="" type="checkbox"/>	24. Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
<input checked="" type="checkbox"/>	25. Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.
<input checked="" type="checkbox"/>	26. Fire suppression systems.
<input type="checkbox"/>	27. Firefighting equipment and the equipment used to train firefighters.
<input type="checkbox"/>	28. Flares used solely to indicate danger to the public.
<input checked="" type="checkbox"/>	29. Fugitive emission related to movement of passenger vehicle provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.
<input type="checkbox"/>	30. Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.
<input checked="" type="checkbox"/>	31. Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.
<input type="checkbox"/>	32. Humidity chambers.
<input type="checkbox"/>	33. Hydraulic and hydrostatic testing equipment.
<input type="checkbox"/>	34. Indoor or outdoor kerosene heaters.
<input checked="" type="checkbox"/>	35. Internal combustion engines used for landscaping purposes.
<input type="checkbox"/>	36. Laser trimmers using dust collection to prevent fugitive emissions.
<input type="checkbox"/>	37. Laundry activities, except for dry-cleaning and steam boilers.
<input checked="" type="checkbox"/>	38. Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.
<input type="checkbox"/>	39. Oxygen scavenging (de-aeration) of water.
<input type="checkbox"/>	40. Ozone generators.

24. Insignificant Activities (Check all that apply)	
<input checked="" type="checkbox"/>	41. Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification. (Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant owners/operators must still get a permit if otherwise requested.)
<input checked="" type="checkbox"/>	42. Portable electrical generators that can be moved by hand from one location to another. "Moved by Hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device.
<input type="checkbox"/>	43. Process water filtration systems and demineralizers.
<input checked="" type="checkbox"/>	44. Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or de-greasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification.
<input checked="" type="checkbox"/>	45. Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.
<input checked="" type="checkbox"/>	46. Routing calibration and maintenance of laboratory equipment or other analytical instruments.
<input type="checkbox"/>	47. Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers.
<input type="checkbox"/>	48. Shock chambers.
<input type="checkbox"/>	49. Solar simulators.
<input type="checkbox"/>	50. Space heaters operating by direct heat transfer.
<input type="checkbox"/>	51. Steam cleaning operations.
<input type="checkbox"/>	52. Steam leaks.
<input type="checkbox"/>	53. Steam sterilizers.
<input checked="" type="checkbox"/>	54. Steam vents and safety relief valves.
<input type="checkbox"/>	55. Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.
<input checked="" type="checkbox"/>	56. Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP. Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.
<input type="checkbox"/>	57. Such other sources or activities as the Director may determine.
<input checked="" type="checkbox"/>	58. Tobacco smoking rooms and areas.
<input checked="" type="checkbox"/>	59. Vents from continuous emissions monitors and other analyzers.

Section 5: Emission Units, Control Devices, and Emission Points

25. Equipment Table
Fill out the Title V Equipment Table and provide it as ATTACHMENT D .
26. Emission Units
For each emission unit listed in the Title V Equipment Table , fill out and provide an Emission Unit Form as ATTACHMENT E .
For each emission unit not in compliance with an applicable requirement, fill out a Schedule of Compliance Form as ATTACHMENT F .
27. Control Devices
For each control device listed in the Title V Equipment Table , fill out and provide an Air Pollution Control Device Form as ATTACHMENT G .
For any control device that is required on an emission unit in order to meet a standard or limitation for which the potential pre-control device emissions of an applicable regulated air pollutant is greater than or equal to the Title V Major Source Threshold Level, refer to the Compliance Assurance Monitoring (CAM) Form(s) for CAM applicability. Fill out and provide these forms, if applicable, for each Pollutant Specific Emission Unit (PSEU) as ATTACHMENT H .

Section 6: Certification of Information

28. Certification of Truth, Accuracy and Completeness and Certification of Compliance

*Note: This Certification must be signed by a responsible official. The **original**, signed in **blue ink**, must be submitted with the application. Applications without an **original** signed certification will be considered as incomplete.*

a. Certification of Truth, Accuracy and Completeness

I certify that I am a responsible official (as defined at 45CSR§30-2.38) and am accordingly authorized to make this submission on behalf of the owners or operators of the source described in this document and its attachments. I certify under penalty of law that I have personally examined and am familiar with the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine and/or imprisonment.

b. Compliance Certification

Except for requirements identified in the Title V Application for which compliance is not achieved, I, the undersigned hereby certify that, based on information and belief formed after reasonable inquiry, all air contaminant sources identified in this application are in compliance with all applicable requirements.

Responsible official (type or print)

Name: Dave McClain

Title: Plant Manager

Responsible official's signature:

Signature:

Dave McClain

Signature Date:

9-30-16

(Must be signed and dated in blue ink)

Note: Please check all applicable attachments included with this permit application:

☒ ATTACHMENT A: Area Map

☒ ATTACHMENT B: Plot Plan(s)

☒ ATTACHMENT C: Process Flow Diagram(s)

☒ ATTACHMENT D: Equipment Table

☒ ATTACHMENT E: Emission Unit Form(s)

☐ ATTACHMENT F: Schedule of Compliance Form(s) - **Not Applicable**

☒ ATTACHMENT G: Air Pollution Control Device Form(s)

☒ ATTACHMENT H: Compliance Assurance Monitoring (CAM) Form(s)

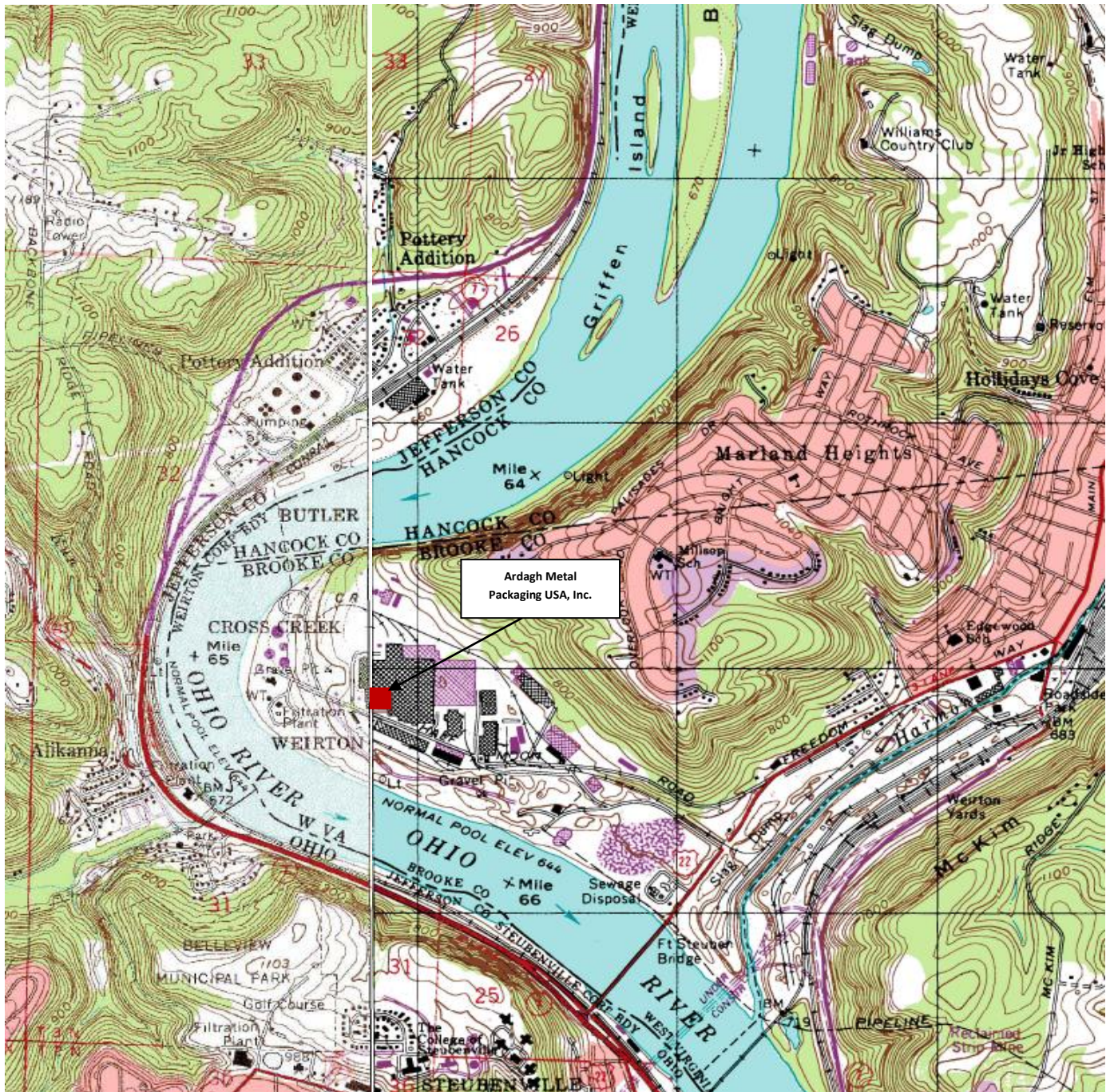
All of the required forms and additional information can be found and downloaded from, the DEP website at www.dep.wv.gov/dag, requested by phone (304) 926-0475, and/or obtained through the mail.

ATTACHMENT A

AREA MAP

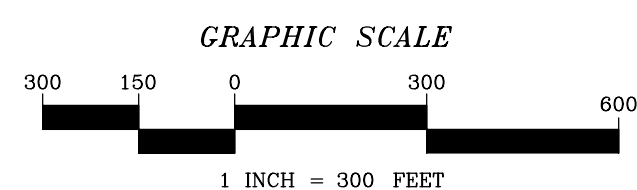
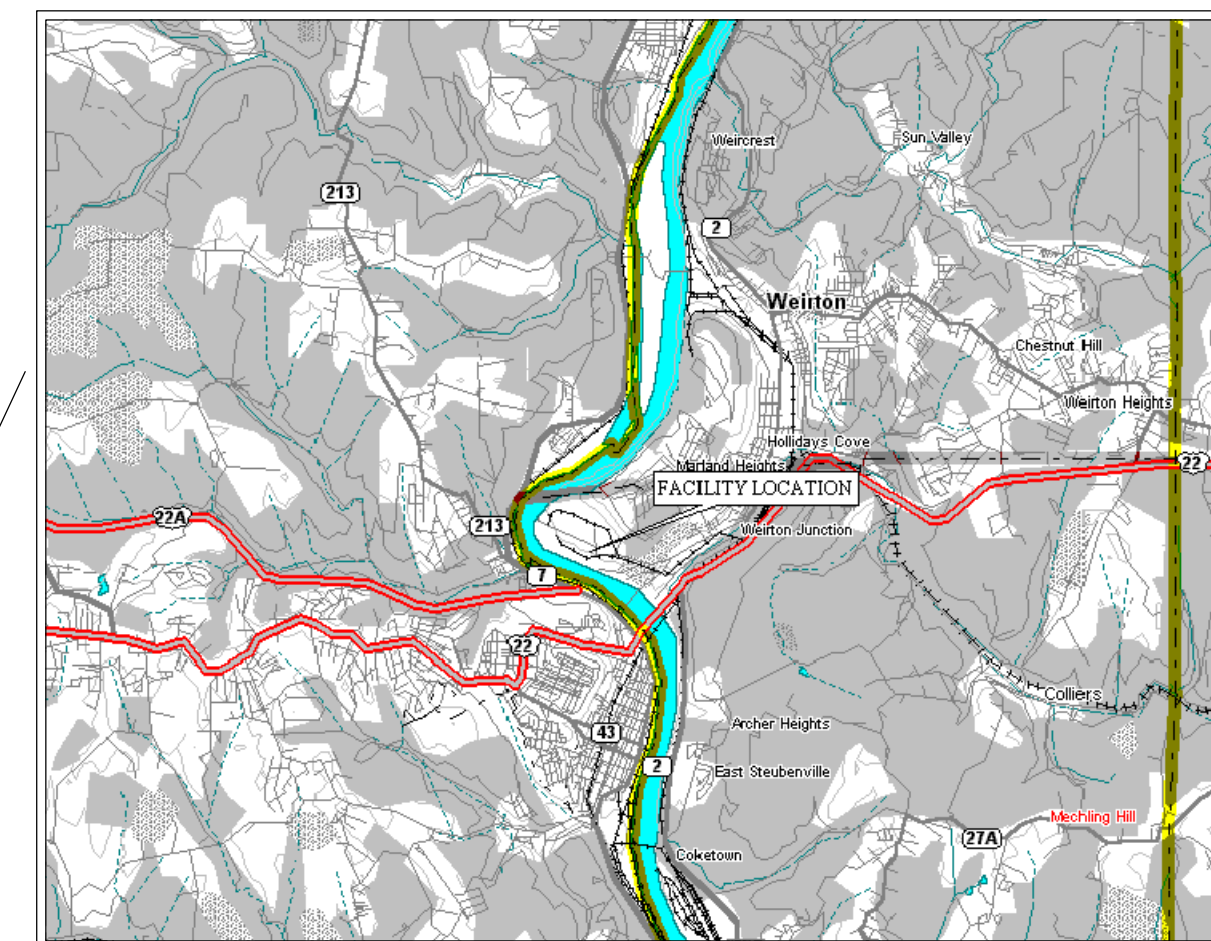
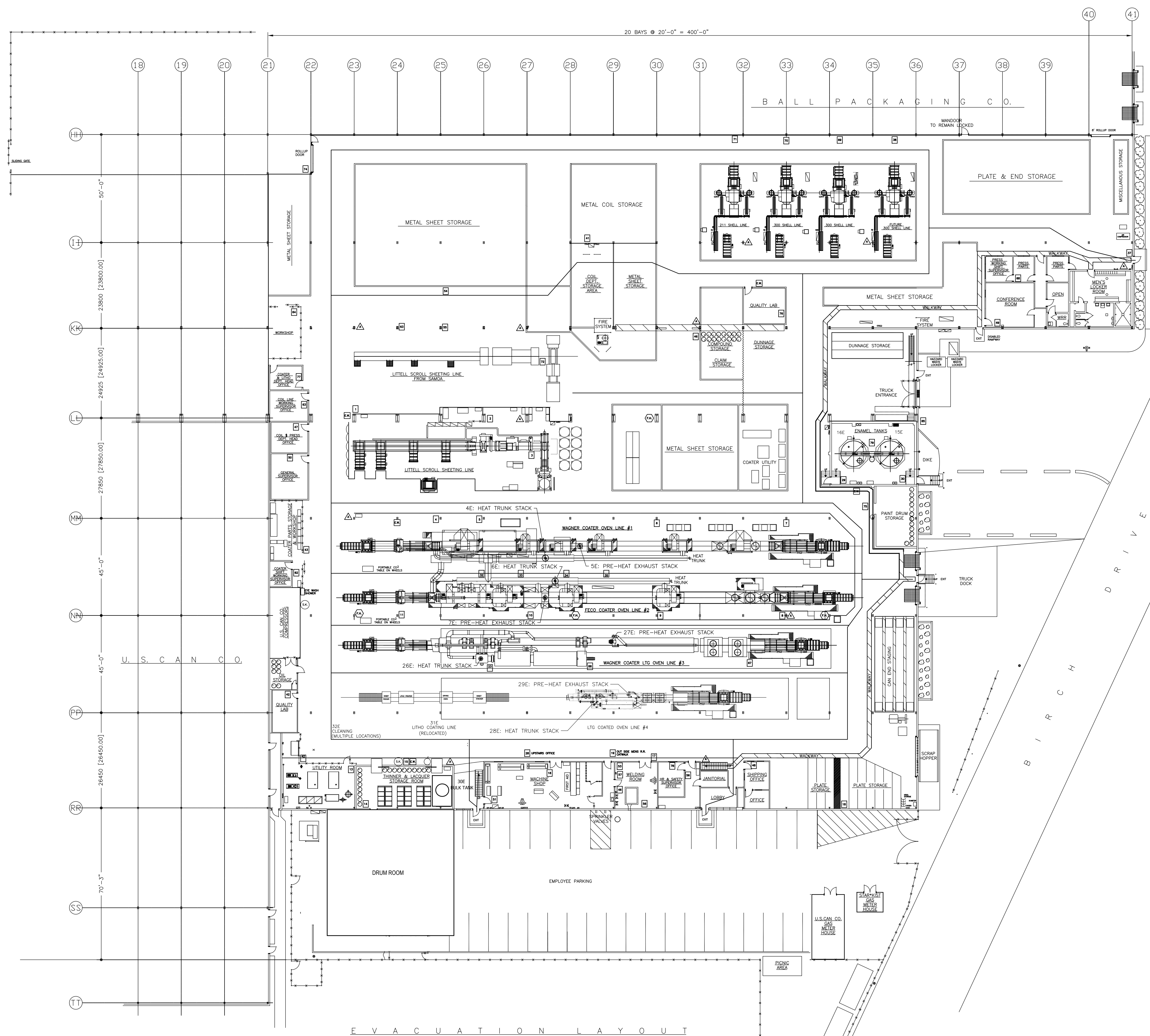
Attachment A- Area Map

Ardagh Metal Packaging USA, Inc.
3030 Birch Drive, Weirton, WV



ATTACHMENT B

PLOT PLAN



DRAWING REFERENCE:
BASE DRAWING PROVIDED BY STAR-KIST FOODS,
CAN TECH SERVICES
DRAWING NO. 25M10020-2, DATED 12/17/99.

CAD File No.
Drawn
Checked
Approved
1"=300'
Scale:
Date:
Project No.

**ARDAGH METAL PACKAGING USA
WEIRTON, WEST VIRGINIA**

Client

PLAN VIEW
WEIRTON PLANT

1
Drawing No.

XREF Files: IMAGE Files: WEIRTON.bmp
File: S:\proj\05-0473 IMPRESS\dwg\05-0473-01.dwg
Plot Date/Time: Apr 17 2006 3:05pm

ATTACHMENT C

PROCESS FLOW DIAGRAM

Attachment C- Process Flow Diagram

Ardagh Metal Packaging USA, Inc.

3030 Birch Drive, Weirton, WV



Coating Line No. 2 – C2 (2S)

Natural Gas Fuel Consumption - 15,000ft³/hr

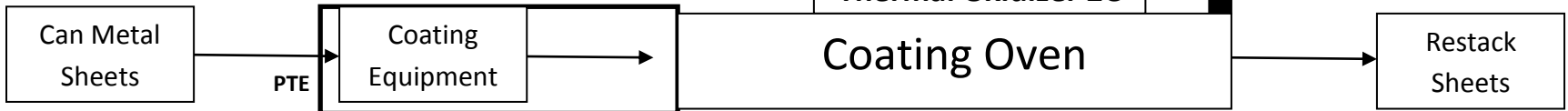
Production - 7,300 sheets/hr



Coating Line No. 1 – C1 (1S)

Natural Gas Fuel Consumption – 15,000ft³/hr

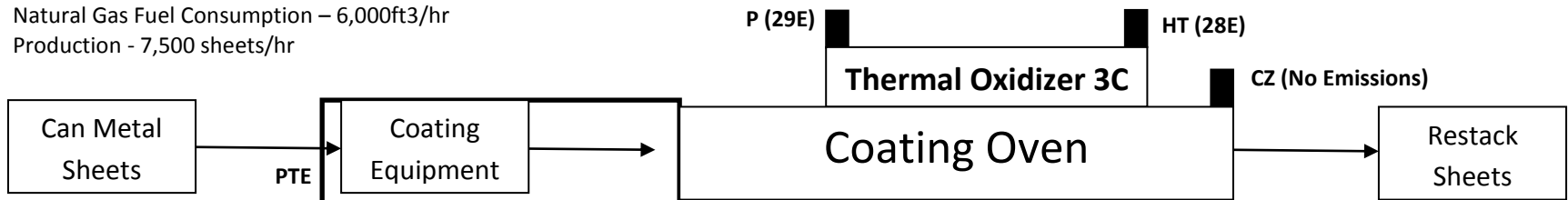
Production - 7,300 sheets/hr



Coating Line No. 3 – C3 (17S)

Natural Gas Fuel Consumption – 6,000ft³/hr

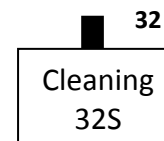
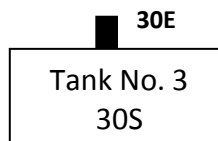
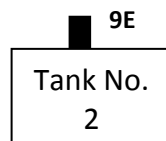
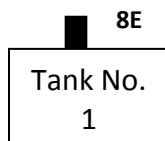
Production - 7,500 sheets/hr



Coating Line No. 4 – C4 (18S) with Litho Coater (31S)

Natural Gas Fuel Consumption – 6,000ft³/hr

Production - 7,500 sheets/hr



PTE – Permanent Total Enclosure
P – Preheat Exhaust Stack
HT – Heat Trunk Stack
CZ – Cooling Zones

ATTACHMENT D

**TITLE V
EQUIPMENT TABLE**

ATTACHMENT D - Title V Equipment Table
(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

[illegible]

¹For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

ATTACHMENT E

EMISSION UNIT FORMS

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 1S	Emission unit name: Coater No. 1	List any control devices associated with this emission unit: 1C (CD-1)
---------------------------------------	--	--

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Can sheet metal coating line, which applies coatings, conveys the sheets through a drier, and restacks the can sheets. A thermal oxidizer provides the heat for the drying oven while controlling the VOC and HAP emissions.

Manufacturer: Wagner	Model number: N/A	Serial number: N/A
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Construction date: 1979	Installation date: 1979	Modification date(s): 2008
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 7,300 sheets/hour

Maximum Hourly Throughput: 7,300 sheets/hr	Maximum Annual Throughput: 47,012,000 sheets/year	Maximum Operating Schedule: 8,760 hours/year
--	---	--

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ___ Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___ Direct Fired
--	---

Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
--	---

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO _x)	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter (PM _{2.5})	N/A	N/A
Particulate Matter (PM ₁₀)	N/A	N/A
Total Particulate Matter (TSP)	N/A	N/A
Sulfur Dioxide (SO ₂)	N/A	N/A
Volatile Organic Compounds (VOC)	14.83	80.90 (Line 1-Line 4)
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total HAPs	5.51	7.81 (Line 1-Line 4)*
Individual HAPs	N/A	See Appendix C*
* Note: Facility wide emissions limit of < 25 TPY combined and <10 TPY Individual HAPs per Permit Condition 4.1.10)		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>See the emissions estimate in Appendix C.</p> <p>Note: VOC emissions outlined in the table above represents proposed PTE emissions consistent with the current permit limitations. No change in emission limits are being requested at this time. PTE emission calculations for this EU outlined in Appendix C may be lower than the PTE provided above.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

	Applicable Requirement	Permit Condition Number	Pollutant/Parameter	Limit/Standard
1	45 CSR § 13, R13-2410, 4.1.2.	4.1.2	Capacity	7,300 sheets/hr
2	45 CSR § 13, R13-2410, 4.1.6.	4.1.6	VOC Capture and Control Efficiency	Minimum VOC capture efficiency 100%, minimum VOC control efficiency 95%
3	45 CSR § 13, R13-2410, 4.1.7.	4.1.7	Coatings/Solvent Usage	Allowable Coatings/Solvents Usage Rates
4	45 CSR § 13, R13-2410, 4.1.9.	4.1.9	VOC	14.83 lb/hr 80.90 TPY for Lines 1-4
5	45 CSR § 13, R13-2410, 4.1.10.	4.1.10	HAPs	<25 TPY combined HAPs and <10 TPY individual HAPs facility wide

☒ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

	Applicable Requirement	Monitoring/Testing/Recordkeeping/Reporting
1	45 CSR § 13, R13-2410, 4.1.2.	Recordkeeping (Section 4.4)
2	45 CSR § 13, R13-2410, 4.1.6.	Testing (Section 4.3)
3	45 CSR § 13, R13-2410, 4.1.7.	Recordkeeping (Section 4.4), Reporting
4 and 5	45 CSR § 13, R13-2410, 4.1.9. 45 CSR § 13, R13-2410, 4.1.10.	Testing (Section 4.3), Recordkeeping (Section 4.4), Reporting

4.3 Testing Requirements

4.3.1. The owner or operator of the affected facility shall construct the VOC emission reduction systems so that all volumetric flow rates and total VOC emissions can be accurately determined by the applicable test methods and procedures of 40 C.F.R. Part 60 Appendix A.
[45CSR13, R13-2410, 4.2.1.]

4.3.2. At least once every 5 years thereafter the permittee shall perform or have performed USEPA approved tests to determine compliance with the emission limitations and emissions control requirements set forth in Sections 4.1.6, 4.1.9, and 5.1.1.

Note: Ardagh conducted a test on February 26 through February 28, 2014 to determine the VOC capture and destruction efficiency.

[45CSR13, R13-2410, 4.2.2.]

4.4 Recordkeeping Requirements

- 4.4.1. The permittee shall maintain records of the amount and type of coatings, cleaners, pastes and thinners used and VOC and HAP emissions for the coating lines. VOC and HAP emissions shall be calculated using the minimum required control and capture efficiencies as outlined in this permit. Said records shall be maintained on a monthly and 12 month rolling total basis.

[45CSR13, R13-2410, 4.3.4.]

- 4.4.2. The permittee shall maintain hourly records of the metal sheets that are coated on each coating line as required by Sections 4.1.2, 4.1.3, 4.1.4, and 4.1.5.

[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 2S	Emission unit name: Coater No. 2	List any control devices associated with this emission unit: 1C
---------------------------------------	--	---

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Can sheet metal coating line, which applies coatings, conveys the sheets through a drier, and restacks the can sheets. A thermal oxidizer provides the heat for the drying oven while controlling the VOC and HAP emissions.

Manufacturer: FECO	Model number: N/A	Serial number: N/A
------------------------------	-----------------------------	------------------------------

Construction date: 1988	Installation date: 1988	Modification date(s): 2008
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 7,300 sheets/hour

Maximum Hourly Throughput: 7,300 sheets/hr	Maximum Annual Throughput: 63,948,000 sheets/year	Maximum Operating Schedule: 8,760 hrs/yr
--	---	--

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ___ Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___ Direct Fired
--	---

Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
--	---

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO _x)	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter (PM _{2.5})	N/A	N/A
Particulate Matter (PM ₁₀)	N/A	N/A
Total Particulate Matter (TSP)	N/A	N/A
Sulfur Dioxide (SO ₂)	N/A	N/A
Volatile Organic Compounds (VOC)	14.83	80.9 (Line 1-Line 4)
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total HAPs	5.51	7.81 (Line 1-Line 4)*
Individual HAPs	N/A	See Appendix C*
* Note: Facility wide emissions limit of < 25 TPY combined and <10 TPY Individual HAPs per Permit Condition 4.1.10)		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>See the emissions estimate in Appendix C.</p> <p>Note: VOC emissions outlined in the table above represents proposed PTE emissions consistent with the current permit limitations. No change in emission limits are being requested at this time. PTE emission calculations for this EU outlined in Appendix C may be lower than the PTE provided above.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

	Applicable Requirement	Permit Condition Number	Pollutant/Parameter	Limit/Standard
1	45 CSR § 13, R13-2410, 4.1.3.	4.1.3	Capacity	7,300 sheets/hr
2	45 CSR § 13, R13-2410, 4.1.6.	4.1.6	VOC Capture and Control Efficiency	Minimum VOC capture efficiency 100%, minimum VOC control efficiency 95%
3	45 CSR § 13, R13-2410, 4.1.7.	4.1.7	Coatings/Solvent Usage	Allowable Coatings/Solvents Usage Rates
4	45 CSR § 13, R13-2410, 4.1.9.	4.1.9	VOC	14.83 lb/hr 80.90 TPY for Lines 1-4
5	45 CSR § 13, R13-2410, 4.1.10.	4.1.10	HAPs	<25 TPY combined HAPs and <10 TPY individual HAPs facility wide

X Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

	Applicable Requirement	Monitoring/Testing/Recordkeeping/Reporting
1	45 CSR § 13, R13-2410, 4.1.3.	Recordkeeping (Section 4.4)
2	45 CSR § 13, R13-2410, 4.1.6.	Testing (Section 4.3)
3	45 CSR § 13, R13-2410, 4.1.7.	Recordkeeping (Section 4.4), Reporting
4 and 5	45 CSR § 13, R13-2410, 4.1.9. 45 CSR § 13, R13-2410, 4.1.10.	Testing (Section 4.3), Recordkeeping (Section 4.4), Reporting

4.3 Testing Requirements

4.3.1. The owner or operator of the affected facility shall construct the VOC emission reduction systems so that all volumetric flow rates and total VOC emissions can be accurately determined by the applicable test methods and procedures of 40 C.F.R. Part 60 Appendix A.
[45CSR13, R13-2410, 4.2.1.]

4.3.2. At least once every 5 years thereafter the permittee shall perform or have performed USEPA approved tests to determine compliance with the emission limitations and emissions control requirements set forth in Sections 4.1.6, 4.1.9, and 5.1.1.

Note: Ardagh conducted a test on February 26 through February 28, 2014 to determine the VOC capture and destruction efficiency.

[45CSR13, R13-2410, 4.2.2.]

4.4 Recordkeeping Requirements

- 4.4.1. The permittee shall maintain records of the amount and type of coatings, cleaners, pastes and thinners used and VOC and HAP emissions for the coating lines. VOC and HAP emissions shall be calculated using the minimum required control and capture efficiencies as outlined in this permit. Said records shall be maintained on a monthly and 12 month rolling total basis.

[45CSR13, R13-2410, 4.3.4.]

- 4.4.2. The permittee shall maintain hourly records of the metal sheets that are coated on each coating line as required by Sections 4.1.2, 4.1.3, 4.1.4, and 4.1.5.

[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 17S	Emission unit name: Coater No. 3	List any control devices associated with this emission unit: 2C (CD-2)
--	--	--

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Can sheet metal coating line, which applies coatings, conveys the sheets through a drier, and restacks the can sheets. A thermal oxidizer provides the heat for the drying oven while controlling the VOC and HAP emissions.

Manufacturer: Wagner	Model number: N/A	Serial number: N/A
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Construction date: 1997	Installation date: 1997	Modification date(s): 2008
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 7,500 sheets/hr

Maximum Hourly Throughput: 7,500 sheets/hr	Maximum Annual Throughput: 65,700,000 sheets/yr	Maximum Operating Schedule: 8,760 hours
--	---	---

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ___ Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___ Direct Fired
--	---

Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
--	---

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO _x)	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter (PM _{2.5})	N/A	N/A
Particulate Matter (PM ₁₀)	N/A	N/A
Total Particulate Matter (TSP)	N/A	N/A
Sulfur Dioxide (SO ₂)	N/A	N/A
Volatile Organic Compounds (VOC)	6.10	80.90 (Line 1- Line 4)
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total HAPs	2.27	7.81 (Line 1-Line 4)*
Individual HAPs	N/A	See Appendix C*
* Note: Facility wide emissions limit of < 25 TPY combined and <10 TPY Individual HAPs per Permit Condition 4.1.10)		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>See the emissions estimate in Appendix C.</p> <p>Note: VOC emissions outlined in the table above represents proposed PTE emissions consistent with the current permit limitations. No change in emission limits are being requested at this time. PTE emission calculations for this EU outlined in Appendix C may be lower than the PTE provided above.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

	Applicable Requirement	Permit Condition Number	Pollutant/Parameter	Limit/Standard
1	45 CSR § 13, R13-2410, 4.1.4.	4.1.4	Capacity	7,500 sheets/hr
2	45 CSR § 13, R13-2410, 4.1.6.	4.1.6	VOC Capture and Control Efficiency	Minimum VOC capture efficiency 100%, minimum VOC control efficiency 95%
3	45 CSR § 13, R13-2410, 4.1.7.	4.1.7	Coatings/Solvents Usage	Allowable Coatings/Solvents Usage Rates
4	45 CSR § 13, R13-2410, 4.1.9.	4.1.9	VOC	6.10 lb/hr 80.90 TPY for Lines 1-4
5	45 CSR § 13, R13-2410, 4.1.10.	4.1.10	HAPs	<25 TPY combined HAPs and <10 TPY individual HAPs facility wide

☒ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

	Applicable Requirement	Monitoring/Testing/Recordkeeping/Reporting
1	45 CSR § 13, R13-2410, 4.1.4.	Recordkeeping (Section 4.4)
2	45 CSR § 13, R13-2410, 4.1.6.	Testing (Section 4.3)
3	45 CSR § 13, R13-2410, 4.1.7.	Recordkeeping (Section 4.4), Reporting
4 and 5	45 CSR § 13, R13-2410, 4.1.9. 45 CSR § 13, R13-2410, 4.1.10.	Testing (Section 4.3), Recordkeeping (Section 4.4), Reporting

4.3 Testing Requirements

- 4.3.1. The owner or operator of the affected facility shall construct the VOC emission reduction systems so that all volumetric flow rates and total VOC emissions can be accurately determined by the applicable test methods and procedures of 40 C.F.R. Part 60 Appendix A.

[45CSR13, R13-2410, 4.2.1.]

- 4.3.2. At least once every 5 years thereafter the permittee shall perform or have performed USEPA approved tests to determine compliance with the emission limitations and emissions control requirements set forth in Sections 4.1.6, 4.1.9, and 5.1.1.

Note: Ardagh conducted a test on February 26 through February 28, 2014 to determine the VOC capture and destruction efficiency.

[45CSR13, R13-2410, 4.2.2.]

4.4 Recordkeeping Requirements

- 4.4.1. The permittee shall maintain records of the amount and type of coatings, cleaners, pastes and thinners used and VOC and HAP emissions for the coating lines. VOC and HAP emissions shall be calculated using the minimum required control and capture efficiencies as outlined in this permit. Said records shall be maintained on a monthly and 12 month rolling total basis.
[45CSR13, R13-2410, 4.3.4.]
- 4.4.2. The permittee shall maintain hourly records of the metal sheets that are coated on each coating line as required by Sections 4.1.2, 4.1.3, 4.1.4, and 4.1.5.
[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 18S	Emission unit name: Coater No. 4	List any control devices associated with this emission unit: 3C (CD-3)
--	--	--

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Can sheet metal coating line, which applies coatings, conveys the sheets through a drier, and restacks the can sheets. A thermal oxidizer provides the heat for the drying oven while controlling the VOC and HAP emissions.

Manufacturer: LTG Coater	Model number: N/A	Serial number: N/A
------------------------------------	-----------------------------	------------------------------

Construction date: 2001	Installation date: 2001	Modification date(s): 2008
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 7,500 sheets/hour

Maximum Hourly Throughput: 7,500 sheets/hr	Maximum Annual Throughput: 65,700,000 sheets/year	Maximum Operating Schedule: 8,760 hrs/yr
--	---	--

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ___ Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___ Direct Fired
--	---

Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
--	---

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO _x)	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter (PM _{2.5})	N/A	N/A
Particulate Matter (PM ₁₀)	N/A	N/A
Total Particulate Matter (TSP)	N/A	N/A
Sulfur Dioxide (SO ₂)	N/A	N/A
Volatile Organic Compounds (VOC)	3.05	80.9 (Line 1-Line 4)
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total HAPs	1.13	7.81 (Line 1-Line 4)*
Individual HAPs	N/A	See Appendix C*
* Note: Facility wide emissions limit of < 25 TPY combined and <10 TPY Individual HAPs per Permit Condition 4.1.10)		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>See the emissions estimate in Appendix C.</p> <p>Note: VOC emissions outlined in the table above represents proposed PTE emissions consistent with the current permit limitations. No change in emission limits are being requested at this time. PTE emission calculations for this EU outlined in Appendix C may be lower than the PTE provided above.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

	Applicable Requirement	Permit Condition Number	Pollutant/Parameter	Limit/Standard
1	45 CSR § 13, R13-2410, 4.1.4.	4.1.5	Capacity	7,500 sheets/hr
2	45 CSR § 13, R13-2410, 4.1.6.	4.1.6	VOC Capture and Control Efficiency	Minimum VOC capture efficiency 100%, minimum VOC control efficiency 99%
3	45 CSR § 13, R13-2410, 4.1.7.	4.1.7	Coatings/Solvent Usage	Allowable Coatings/Solvents Usage Rates
4	45 CSR § 13, R13-2410, 4.1.9.	4.1.9	VOC	3.05 lb/hr 80.90 TPY for Lines 1-4
5	45 CSR § 13, R13-2410, 4.1.10.	4.1.10	HAPs	<25 TPY combined HAPs and <10 TPY individual HAPs facility wide

X Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

	Applicable Requirement	Monitoring/Testing/Recordkeeping/Reporting
1	45 CSR § 13, R13-2410, 4.1.5.	Recordkeeping (Section 4.4)
2	45 CSR § 13, R13-2410, 4.1.6.	Testing (Section 4.3)
3	45 CSR § 13, R13-2410, 4.1.7.	Recordkeeping (Section 4.4), Reporting
4 and 5	45 CSR § 13, R13-2410, 4.1.9. 45 CSR § 13, R13-2410, 4.1.10.	Testing (Section 4.3), Recordkeeping (Section 4.4), Reporting

4.3 Testing Requirements

4.3.1. The owner or operator of the affected facility shall construct the VOC emission reduction systems so that all volumetric flow rates and total VOC emissions can be accurately determined by the applicable test methods and procedures of 40 C.F.R. Part 60 Appendix A.
[45CSR13, R13-2410, 4.2.1.]

4.3.2. At least once every 5 years thereafter the permittee shall perform or have performed USEPA approved tests to determine compliance with the emission limitations and emissions control requirements set forth in Sections 4.1.6, 4.1.9, and 5.1.1.

Note: Ardagh conducted a test on February 26 through February 28, 2014 to determine the VOC capture and destruction efficiency.

[45CSR13, R13-2410, 4.2.2.]

4.4 Recordkeeping Requirements

- 4.4.1. The permittee shall maintain records of the amount and type of coatings, cleaners, pastes and thinners used and VOC and HAP emissions for the coating lines. VOC and HAP emissions shall be calculated using the minimum required control and capture efficiencies as outlined in this permit. Said records shall be maintained on a monthly and 12 month rolling total basis.

[45CSR13, R13-2410, 4.3.4.]

- 4.4.2. The permittee shall maintain hourly records of the metal sheets that are coated on each coating line as required by Sections 4.1.2, 4.1.3, 4.1.4, and 4.1.5.

[45CSR§30-5.1.c.]

Are you in compliance with all applicable requirements for this emission unit? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 15S	Emission unit name: Bulk Storage Tank No. 1	List any control devices associated with this emission unit. N/A
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):

Bulk tank storage of coating material.

Manufacturer: N/A	Model number: N/A	Serial number: N/A
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Construction date: 1998	Installation date: 1998	Modification date(s): N/A
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 10,000 gallons

Maximum Hourly Throughput: N/A	Maximum Annual Throughput: 200,000 gallons	Maximum Operating Schedule: 8,760 hours/year
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ___Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___ Direct Fired
---	--

Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
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List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH (Uncontrolled/Controlled)	TPY (Uncontrolled/Controlled)
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO _x)	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter (PM ₁₀) (TSP/2.1)	N/A	N/A
Total Particulate Matter (TSP)	N/A	N/A
Sulfur Dioxide (SO ₂)	N/A	N/A
Volatile Organic Compounds (VOC)	N/A	342 lb/yr (15S) 0.34/0.34 (Tanks 15S, 16S, 30S)
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total HAPS	N/A	0.096/0.096 TPY (15S)*
* Note: Facility wide emissions limit of < 25 TPY combined and <10 TPY Individual HAPs per Permit Condition 4.1.10)		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.). EPA TANKS 4.0.9d. See the emissions estimate in Appendix C.		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

	Applicable Requirement	Permit Condition Number	Pollutant/Parameter	Limit/Standard
1	45 CSR § 13, R13-2410, 4.1.1. Permit #: R30-00900012-2012 (MM01)	4.1.1	Throughput	200,000 gal/yr
2	45 CSR § 13, R13-2410, 4.1.1. Permit #: R30-00900012-2012 (MM01)	4.1.1 and 4.1.9	VOC	342 lbs/yr (15S) 0.34 TPY for Tanks 15S, 16S, 30S

☒ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

	Applicable Requirement	Monitoring/Testing/Recordkeeping/Reporting
1	45 CSR § 13, R13-2410, 4.1.1. Permit #: R30-00900012-2012 (MM01)	Recordkeeping, Reporting
2	45 CSR § 13, R13-2410, 4.1.1. and 4.1.9 Permit #: R30-00900012-2012 (MM01)	Recordkeeping, Reporting

Are you in compliance with all applicable requirements for this emission unit? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 16S	Emission unit name: Bulk Storage Tank No. 2	List any control devices associated with this emission unit. N/A
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):

Bulk tank storage of coating material.

Manufacturer: N/A	Model number: N/A	Serial number: N/A
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Construction date: 1998	Installation date: 1998	Modification date(s): N/A
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 10,000 gallons

Maximum Hourly Throughput: N/A	Maximum Annual Throughput: 200,000 gallons	Maximum Operating Schedule: 8,760 hours/year
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ___ Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___ Direct Fired
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Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
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List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH (Uncontrolled/Controlled)	TPY (Uncontrolled/Controlled)
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO _x)	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter (PM ₁₀) (TSP/2.1)	N/A	N/A
Total Particulate Matter (TSP)	N/A	N/A
Sulfur Dioxide (SO ₂)	N/A	N/A
Volatile Organic Compounds (VOC)	N/A	342 lb/yr (16S) 0.34/0.34 (Tanks 15S, 16S, 30S)
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total HAPS	N/A	0.096/0.096 TPY (16S)*
* Note: Facility wide emissions limit of < 25 TPY combined and <10 TPY Individual HAPs per Permit Condition 4.1.10)		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.). EPA TANKS 4.0.9d. See the emissions estimate in Appendix C.		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

	Applicable Requirement	Permit Condition Number	Pollutant/Parameter	Limit/Standard
1	45 CSR § 13, R13-2410, 4.1.1. Permit #: R30-00900012-2012 (MM01)	4.1.1	Throughput	200,000 gal/yr
2	45 CSR § 13, R13-2410, 4.1.1. Permit #: R30-00900012-2012 (MM01)	4.1.1 and 4.1.9	VOC	342 lbs/yr (16S) 0.34 TPY for Tanks 15S, 16S, 30S

☒ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

	Applicable Requirement	Monitoring/Testing/Recordkeeping/Reporting
1	45 CSR § 13, R13-2410, 4.1.1. Permit #: R30-00900012-2012 (MM01)	Recordkeeping, Reporting
2	45 CSR § 13, R13-2410, 4.1.1. and 4.1.9 Permit #: R30-00900012-2012 (MM01)	Recordkeeping, Reporting

Are you in compliance with all applicable requirements for this emission unit? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 30S	Emission unit name: Bulk Storage Tank No. 3	List any control devices associated with this emission unit. N/A
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):

Bulk tank storage of Glycol Ether.

Manufacturer: N/A	Model number: N/A	Serial number: N/A
Construction date: 2004	Installation date: 2004	Modification date(s): N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 1,500 gallons

Maximum Hourly Throughput: N/A	Maximum Annual Throughput: 154,000 gallons	Maximum Operating Schedule: 8,760 hours/year
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ___ Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___ Direct Fired
Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH (Uncontrolled/Controlled)	TPY (Uncontrolled/Controlled)
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO _x)	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter (PM ₁₀) (TSP/2.1)	N/A	N/A
Total Particulate Matter (TSP)	N/A	N/A
Sulfur Dioxide (SO ₂)	N/A	N/A
Volatile Organic Compounds (VOC)	N/A	0.34/0.34 (Tanks 15S, 16S, 30S)
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total HAPS	N/A	NA
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>EPA TANKS 4.0.9d. See the emissions estimate in Appendix C.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

	Applicable Requirement	Permit Condition Number	Pollutant/Parameter	Limit/Standard
1	45 CSR § 13, R13-2410, 4.1.1. Permit #: R30-00900012-2012 (MM01)	4.1.1	Throughput	154,000 gal/yr
2	45 CSR § 13, R13-2410, 4.1.1. Permit #: R30-00900012-2012 (MM01)	4.1.1 and 4.1.9	VOC	3.2 lbs/yr (30S) 0.34 TPY for Tanks 15S, 16S, 30S

☒ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

	Applicable Requirement	Monitoring/Testing/Recordkeeping/Reporting
1	45 CSR § 13, R13-2410, 4.1.1. Permit #: R30-00900012-2012 (MM01)	Recordkeeping, Reporting
2	45 CSR § 13, R13-2410, 4.1.1. and 4.1.9 Permit #: R30-00900012-2012 (MM01)	Recordkeeping, Reporting

Are you in compliance with all applicable requirements for this emission unit? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 31S (31E)	Emission unit name: Litho Line	List any control devices associated with this emission unit. N/A
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):

Lithographic printing line.

Manufacturer: N/A	Model number: N/A	Serial number: N/A
Construction date: N/A	Installation date: N/A	Modification date(s): N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 5,100 sheets/hour

Maximum Hourly Throughput: 5,100 sheets/hr	Maximum Annual Throughput: 44,676,000 sheets/yr	Maximum Operating Schedule: 8,760 hours/year
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ___ Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___ Direct Fired
Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH (Uncontrolled/Controlled)	TPY (Uncontrolled/Controlled)
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO _x)	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter (PM ₁₀) (TSP/2.1)	N/A	N/A
Total Particulate Matter (TSP)	N/A	N/A
Sulfur Dioxide (SO ₂)	N/A	N/A
Volatile Organic Compounds (VOC)	1.03/1.03	2.58/2.58
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total HAPS	0.18/0.18	0.44/0.44*
Individual HAPs	N/A	See Appendix C*
* Note: Facility wide emissions limit of < 25 TPY combined and <10 TPY Individual HAPs per Permit Condition 4.1.10)		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>See the emissions estimate in Appendix C.</p> <p>Note: VOC emissions outlined in the table above represents proposed PTE emissions consistent with the current permit limitations. No change in emission limits are being requested at this time. PTE emission calculations for this EU outlined in Appendix C may be lower that the PTE provided above.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

	Applicable Requirement	Permit Condition Number	Pollutant/Parameter	Limit/Standard
1	45 CSR 13, R13-2410, 4.1.9.	4.1.9	VOC	1.03 lb/hr 2.58 tpy

☒ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

	Applicable Requirement	Monitoring/Testing/Recordkeeping/Reporting
	45 CSR § 13, R13-2410, 4.1.9.	Recordkeeping, Reporting

Are you in compliance with all applicable requirements for this emission unit? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 32S	Emission unit name: Cleaning	List any control devices associated with this emission unit. N/A
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):

Cleaning of equipment with solvents.

Manufacturer: N/A	Model number: N/A	Serial number: N/A
Construction date: N/A	Installation date: N/A	Modification date(s): N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): N/A. Usage of cleaning solvents: 40 gallons/hr (gph) , 12,000 gallon per year (gpy) 4212-2, 1 gph and 330 gpy Eastman MPK, 1 gph and 5,000 gpy IPA Anhydrous, 10 gph and 2,000 gpy (each) UV Wash 5700 and General Press Wash.

Maximum Hourly Throughput: See Design Capacity above	Maximum Annual Throughput: See Design Capacity above	Maximum Operating Schedule: 8,760 hours/year
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ___Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___ Direct Fired
Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH (Uncontrolled/Controlled)	TPY (Uncontrolled/Controlled)
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO _x)	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter (PM ₁₀) (TSP/2.1)	N/A	N/A
Total Particulate Matter (TSP)	N/A	N/A
Sulfur Dioxide (SO ₂)	N/A	N/A
Volatile Organic Compounds (VOC)	279.53/279.53	58.2/58.2
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total HAPS	56.18/56.18	15.76/15.76*
Individual HAPs	N/A	See Appendix C*
* Note: Facility wide emissions limit of < 25 TPY combined and <10 TPY Individual HAPs per Permit Condition 4.1.10)		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Material Balance. See the emissions estimate in Appendix C.</p> <p>Note: the table above represents proposed PTE emissions consistent with the current permit limitations. No change in emission limits are being requested at this time. PTE emission calculations for this EU outlined in Appendix C may be lower than the PTE provided above.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

	Applicable Requirement	Permit Condition Number	Pollutant/Parameter	Limit/Standard
1	45 CSR § 13, R13-2410, 4.1.7. Permit #: R30-00900012-2012	4.1.7	Coatings/ Solvent	Allowable Coatings/Solvents Usage Rates
2	45 CSR 13, R13-2410, 4.1.9.	4.1.9	VOC	279.53 lb/hr 58.20 TPY
3	45 CSR § 13, R13-2410, 4.1.10.	4.1.10	HAPs	<25 TPY combined HAPs and <10 TPY individual HAPs facility wide

☒ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

	Applicable Requirement	Monitoring/Testing/Recordkeeping/Reporting
1	45 CSR § 13, R13-2410, 4.1.7.	Recordkeeping, Reporting
2	45 CSR § 13, R13-2410, 4.1.9.	Testing, Recordkeeping, Reporting
3	45 CSR § 13, R13-2410, 4.1.10.	Recordkeeping, Reporting

Are you in compliance with all applicable requirements for this emission unit? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 1C (CD-1)	Emission unit name: Thermal Oxidizer No. 1	List any control devices associated with this emission unit. This is a control device.
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):

Thermal oxidizer for Coating Line No. 1 and No. 2. Emission Points 4E, 5E, 6E, and 7E.

Manufacturer: Wagner	Model number: N/A	Serial number: N/A
Construction date: 1979	Installation date: 1979	Modification date(s): N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): N/A

Maximum Hourly Throughput: N/A	Maximum Annual Throughput: N/A	Maximum Operating Schedule: N/A
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
Maximum design heat input and/or maximum horsepower rating: 15.0 MM Btu/hr	Type and Btu/hr rating of burners: 15.0 MM Btu/hr

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Natural Gas

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	20 grain/100 scf	N/A	1,000

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH (Uncontrolled/Controlled)	TPY (Uncontrolled/Controlled)
Carbon Monoxide (CO)	1.26/1.26	5.52/5.52
Nitrogen Oxides (NO _x)	1.50/1.50	6.57/6.57
Lead (Pb)	N/A	N/A
Particulate Matter (PM ₁₀) (TSP/2.1)	0.11/0.11	0.50/0.50
Total Particulate Matter (TSP)	0.11/0.11	0.50/0.50
Sulfur Dioxide (SO ₂)	0.01/0.01	0.04/0.04
Volatile Organic Compounds (VOC)	0.08/0.08	0.36/0.36
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total HAPS	0.03/0.03	0.13/0.13*
* Note: Facility wide emissions limit of < 25 TPY combined and <10 TPY Individual HAPs per Permit Condition 4.1.10)		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>AP-42 Emissions Factors, External Combustion Sources (natural gas combustion). See the emissions estimate in Appendix C.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

	Applicable Requirement	Permit Condition Number	Pollutant/Parameter	Limit/Standard
1	45 CSR § 13, R13-2410, 4.1.9.	5.1.1	VOC PM10 CO SO2 NOx	0.08 lb/hr; 0.36 TPY 0.11 lb/hr; 0.50 TPY 1.26 lb/hr; 5.52 TPY 0.01 lb/hr; 0.04 TPY 1.50 lb/hr; 6.57 TPY
2	45 CSR § 13, R13-2410, 4.1.12.	5.1.2	Maximum Heat Input and Natural Gas Consumption	15 MM Btu/hr 131,400 MM Btu/yr 15,000 ft ³ /hr 131.4 MM ft ³ /yr
3	45 CSR §6-4.5.	5.1.8	Particles	Complete Burning
4	45 CSR § 6-4.6.	5.1.9	Odors	Objectionable Odors
5	45 CSR § 6-8.2.	5.1.10	Emissions	Malfunction
6	45 CSR § 13, R13-2410, 4.1.14. Permit #: R30-00900012-2012	5.1.4	Incinerator Temperature	1400 degrees F
7	45 CSR § 6-4.1.	5.1.5	Particulate Matter	1.41 Lb/hr
8	45 CSR § 6-4.3.	5.1.6	Opacity	20%
9	45CSR§6-4.4.	5.1.7	Opacity	40%
10	45 CSR §13, R13-2410, 4.1.6.	4.1.6	VOC Capture and Control Efficiency	100% Capture efficiency 98% Control efficiency

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For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

	Applicable Requirement	Monitoring/Testing/Recordkeeping/Reporting
1	45 CSR § 13, R13-2410, 4.1.9.	Recordkeeping, Reporting
2	45 CSR § 13, R13-2410, 4.1.12.	Recordkeeping, Reporting
3	45 CSR §6-4.5.	Testing, Recordkeeping, Reporting
4	45 CSR § 6-4.6.	Recordkeeping
5	45 CSR § 6-8.2.	Monitoring, Recordkeeping, Reporting
6	45 CSR § 13, R13-2410, 4.1.14. Permit #: R30-00900012-2012	Monitoring, Recordkeeping, Reporting
7	45 CSR § 6-4.1.	Testing, Recordkeeping, Reporting
8	45 CSR § 6-4.3.	Monitoring, Recordkeeping, Reporting
9	45 CSR § 6-4.4.	Monitoring, Recordkeeping, Reporting
10	45 CSR §13, R13-2410, 4.1.6.	Monitoring Testing, Recordkeeping, Reporting

5.2 Monitoring Requirements

5.2.1. For the purpose of determining compliance with the opacity limits of 45CSR6, visible emission

checks of the thermal oxidizer (1C, 2C, 3C) shall be conducted. The visible emission checks shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 C.F.R. Part 60 Appendix A, Method 22 or from the lecture portion of the 40 C.F.R. Part 60, Appendix A, Method 9 certification course.

Visible emission checks shall be conducted on a semi-annual basis. If visible emissions are observed, the permittee shall conduct visible emission checks at least once monthly for three months. If no visible emissions are observed after three months, the permittee may conduct visible emissions checks again on a semi-annual basis. These checks shall be performed at each thermal oxidizer for a sufficient time interval, but no less than one (1) minute, to determine if any visible emissions are present. Visible emission checks shall be performed during periods of facility operation and appropriate weather conditions.

If visible emissions are observed for three (3) consecutive months, the permittee shall conduct an opacity evaluation in accordance with Method 9 of 40 C.F.R. 60 Appendix A, as soon as practicable, but within 72 hours unless the visible emissions are corrected beforehand and the units are operated at normal operating conditions.

[45CSR§30-5.1.c.]

- 5.2.2. The permittee shall install, calibrate, maintain, and continuously operate a device(s) to measure and record each of the pollution control devices' combustion chamber temperatures. All temperature records shall be retained on-site for a period of at least five (5) years and shall be made available to the Secretary or his duly authorized representative upon request. The device for 2C shall have an accuracy of $\pm 2.5^{\circ}\text{C}$ ($\pm 4.5^{\circ}\text{F}$) or ± 0.75 percent of the temperature being measured expressed in degree Celsius. The devices for 1C and 3C shall be certified by the manufacturer to be accurate within plus or minus 1% in degrees Fahrenheit.

[45CSR13, R13-2410, 4.3.5., 1C, 2C and 3C]

- 5.2.3. The permittee shall monitor the Thermal Oxidizer No. 1C combustion temperature throughout the day while Wagner Coater Oven Line #1 (1S) and FECO Coater Oven Line #2 (2S) are in operation. The Thermal Oxidizer No. 1C minimum temperature is to be established during the most recent performance test (see Section 5.1.4.). The temperature monitoring device on the Thermal Oxidizer No. 1C shall have an accuracy within plus or minus 1% in degrees Fahrenheit (see Section 5.2.2.). The temperature gauge shall be calibrated annually according to manufacturer's specifications and recommendations. When VOC and HAPs are not being processed through the thermal oxidizer, the temperature can be lower than the determined minimum temperature. ~~An excursion is defined as when the combustion temperature readings are less than the minimum temperature (see Section 5.1.4.) VOC and HAPs are being processed in the oxidizer.~~ The permittee shall record all periods (during actual coating operations) in which the average temperature in the incinerator remains below the limit set forth in Section 5.1.4 for a period in excess of 3 hours. A period of time meeting these aforementioned temperature and time criteria shall be deemed an excursion for purposes of 40 C.F.R. Part 64, thus initiating an inspection and evaluation, corrective action, recordkeeping and reporting requirement (permit conditions 5.2.8., 5.4.7., 5.5.2.)

[45CSR§30-5.1.c; 40 C.F.R. § 64.6 (c)]

- 5.2.6. *Proper maintenance.* At all times, the owner or operator shall maintain the monitoring specified in Sections 5.2.3, 5.2.4, and 5.2.5, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

[45CSR§30-5.1.c; 40 C.F.R. § 64.7 (b)]

5.2.7. *Continued operation.* Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

[45CSR§30-5.1.c; 40 C.F.R. § 64.7 (c)]

5.2.8. *Response to excursions or exceedances.*

- a. Upon detecting an excursion or exceedance, the owner or operation shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- b. Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

[45CSR§30-5.1.c; 40 C.F.R. § 64.7 (d)]

5.2.9. *Documentation of need for improved monitoring.* After approval of monitoring under 40 C.F.R. 64, if the owner or operator identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the part 70 or 71 permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

[45CSR§30-5.1.c; 40 C.F.R. § 64.7 (e)]

5.2.10. *Quality Improvement Plan (QIP)*

- a. Based on the results of a determination made under Section 5.2.8.b, the Administrator

or the permitting authority may require the owner or operator to develop and implement a QIP. If a QIP is required, then it shall be developed, implemented, and modified as required according to 40 C.F.R. §§ 64.8 (b) through (e). Refer to Section 5.5.2.b.iii for the reporting required when a QIP is implemented.

- b. If during a calendar quarter, an excursion (as defined under Sections 5.2.3, 5.2.4, and 5.2.5.) occurred on more than five (5) percent of the days that the thermal oxidizer (1C, 2C, or 3C) was operated, the permittee shall develop and implement a QIP. The Director may waive this QIP requirement upon a demonstration that the cause(s) of the excursions have been corrected, or may require stack tests at any time pursuant to Section 3.3.1.

[45CSR§30-5.1.c.; 40 C.F.R. § 64.8]

5.3 Testing Requirements

- 5.3.1. At such reasonable times as the Director may designate, the operator of any incinerator shall be required to conduct or have conducted stack tests to determine the particulate matter loading, by using 40 C.F.R. Part 60, Appendix A, Method 5 or other equivalent EPA approved method approved by the Director, in exhaust gases. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or the Director's authorized representative, may at the Director's option witness or conduct such stack tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices.

[45CSR§6-7.1.]

- 5.3.2. The Director, or the Director's duly authorized representative, may conduct such other tests as the Director may deem necessary to evaluate air pollution emissions other than those noted above.

[45CSR§6-7.2.]

- 5.3.3. See Sections 4.3.1 and 4.3.2 for additional testing.

5.4 Recordkeeping Requirements

- 5.4.1. The permittee shall maintain records of all monitoring data required by Section 5.2.1, documenting the date and time of each visible emission check, the emission point or equipment/source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6 - 10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9. For an emission unit out of service during the evaluation, the record of observation may note "out of service" (O/S) or equivalent

[45CSR§30-5.1.c.]

- 5.4.2. The permittee shall maintain records of the amount of natural gas burned in the thermal oxidizers. Said records shall be maintained on a monthly and 12 month rolling total basis.

[45CSR13, R13-2410, 4.3.6.]

- 5.4.3. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.1, the permittee shall maintain accurate records of all required

pollution control equipment inspection and/or preventative maintenance procedures.
[45CSR13, R13-2410, 4.3.2.]

- 5.4.4. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.1, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

- a. The equipment involved.
- b. Steps taken to minimize emissions during the event.
- c. The duration of the event.
- d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.
- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[45CSR13, R13-2410, 4.3.3.]

- 5.4.5. The permittee shall maintain the following records in the manner specified under Condition 3.4.2:

- a. Records of the thermal oxidizers' (1C, 2C, and 3C) combustion temperatures shall be continuously recorded and maintained. The temperature monitoring data shall be recorded using either the process distributed control system, operating log, or other equivalent method approved by the Director.
- b. The data collection frequency shall be at least one (1) data point read every sixty (60) seconds by a continuous electronic recorder. Fifteen (15) consecutive data points shall be averaged to generate one (1) recorded datum every complete 15-minute cycle, equivalent to four (4) data points equally spaced over one (1) hour.
- c. The permittee must determine the average of all recorded readings for each successive 3-hour period of the emission control device operation.
- ~~b~~ d. A record of the number, duration and cause(s) of all excursions or exceedances, and the corrective actions taken shall be maintained for the thermal oxidizers (1C, 2C, and 3C).
- ~~e~~ e. A record of the number, duration, and cause for the downtime of the thermal oxidizers' (1C, 2C, and 3C) temperature gauge shall be kept. This excludes downtime for calibration checks. This document shall also include the measures taken to correct the downtime.
- ~~d~~ f. The permittee shall maintain maintenance records on the thermal oxidizers (1C, 2C, and 3C).

[45CSR§30-5.1.c; 40 C.F.R. § 64.9 (b)]

- 5.4.6. The thermal oxidizers' (1C, 2C, and 3C) records of all periodic testing/checks, calibration, and maintenance per manufacturer's specifications and recommendations shall be maintained.

All records shall be maintained in the manner specified in Condition 3.4.2.

[45CSR§30-5.1.c; 40 C.F.R. § 64.9 (b)]

- 5.4.7. *General recordkeeping requirements for 40 C.F.R. Part 64 (CAM).* The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. § 64.8 (Condition 5.2.10) and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40 C.F.R. Part 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

[45CSR§30-5.1.c; 40 C.F.R. § 64.9 (b)]

5.5 Reporting Requirements

- 5.5.1. Any violation(s) of the allowable visible emission requirement for any emission source discovered during observations using 40 C.F.R. Part 60 Appendix A, Method 9 must be reported in writing to the Director of the Division of Air Quality as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.

[45CSR§30-5.1.c.]

- 5.5.2. *General reporting requirements for 40 C.F.R. Part 64 (CAM)*

- a. On and after the date specified in 40 C.F.R. § 64.7 (a) by which the permittee must use monitoring that meets the requirements of 40 C.F.R. Part 64, the permittee shall submit monitoring reports to the DAQ in accordance with Section 3.5.6.
- b. A report for monitoring under 40 C.F.R. Part 64 shall include, at a minimum, the information required under Section 3.5.8 and the following information, as applicable:
 - i. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
 - ii. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
 - iii. A description of the actions taken to implement a QIP during the reporting period as specified in 40 C.F.R. § 64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[45CSR§30-5.1.c; 40 C.F.R. § 64.9 (a)]

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 2C (CD-2)	Emission unit name: Thermal Oxidizer No. 2	List any control devices associated with this emission unit. This is a control device.
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):

Thermal oxidizer for Coating Line No. 3. Emission Points 23E and 24E.

Manufacturer: LTG	Model number: N/A	Serial number: N/A
Construction date: 1997	Installation date: 1997	Modification date(s): N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): N/A

Maximum Hourly Throughput: N/A	Maximum Hourly Throughput: N/A	Maximum Hourly Throughput: N/A
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
Maximum design heat input and/or maximum horsepower rating: 6.0 MM Btu/hr	Type and Btu/hr rating of burners: 6.0 MM Btu/hr

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Natural Gas

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Fuel Type	Max. Sulfur Content
Natural Gas	20 grain/100 scf	Natural Gas	20 grain/100 scf

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH (Uncontrolled/Controlled)	TPY (Uncontrolled/Controlled)
Carbon Monoxide (CO)	0.50/0.50	2.21/2.21
Nitrogen Oxides (NO _x)	0.30/0.30	1.31/1.31
Lead (Pb)	N/A	N/A
Particulate Matter (PM ₁₀) (TSP/2.1)	0.05/0.05	0.20/0.20
Total Particulate Matter (TSP)	0.05/0.05	0.20/0.20
Sulfur Dioxide (SO ₂)	0.01/0.01	0.02/0.02
Volatile Organic Compounds (VOC)	0.03/0.03	0.14/0.14
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total HAPS	0.02/0.02	0.05/0.05*
* Note: Facility wide emissions limit of < 25 TPY combined and <10 TPY Individual HAPs per Permit Condition 4.1.10)		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>AP-42 Emissions Factors, External Combustion Sources (natural gas combustion). See the emissions estimate in Appendix C.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

	Applicable Requirement	Permit Condition Number	Pollutant/Parameter	Limit/Standard
1	45 CSR § 13, R13-2410, 4.1.9.	5.1.1	VOC PM10 CO SO2 NOx	0.03 lb/hr; 0.14TPY 0.05 lb/hr; 0.20 TPY 0.050 lb/hr; 2.21 TPY 0.01 lb/hr; 0.02 TPY 0.30 lb/hr; 0.31TPY
2	45 CSR § 13, R13-2410, 4.1.12.	5.1.2	Maximum Heat Input & Natural Gas Consumption	6MM Btu/hr 52,560 MM Btu/yr 6,000 scf/hr 52.56 MMscf/yr
3	45 CSR § 13, R13-2410, 4.1.13. Permit #: R30-00900012-2012	5.1.3	Incinerator Temperature	1350 degrees F
4	45 CSR § 6-4.1.	5.1.5	Particulate Matter	0.72 lb/hr
5	45 CSR § 6-4.3.	5.1.6	Opacity	20%
6	45 CSR § 6-4.4.	5.1.7	Opacity	40%
7	45 CSR § 6-4.5.	5.1.8	Particles	Completely burned
8	45 CSR § 6-4.6.	5.1.9	Odors	Objectionable odors
9	45 CSR § 6-8.2.	5.1.10	Emissions	Malfunction
10	45 CSR §13, R13-2410, 4.1.6.	4.1.6	VOC Capture and Control Efficiency	100% Capture efficiency 98% Control efficiency

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For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

	Applicable Requirement	Monitoring/Testing/Recordkeeping/Reporting
1	45 CSR § 13, R13-2410, 4.1.9.	Recordkeeping, Reporting
2	45 CSR § 13, R13-2410, 4.1.12.	Recordkeeping, Reporting
3	45 CSR § 13, R13-2410, 4.1.13. Permit #: R30-00900012-2012	Monitoring, Recordkeeping, Reporting
4	45 CSR § 6-4.1.	Testing, Recordkeeping, Reporting
5	45 CSR § 6-4.3.	Monitoring, Recordkeeping, Reporting
6	45 CSR § 6-4.4.	Monitoring, Recordkeeping, Reporting
7	45 CSR § 6-4.5.	Testing, Recordkeeping, Reporting
8	45 CSR § 6-4.6.	Recordkeeping
9	45 CSR § 6-8.2.	Monitoring, Recordkeeping, Reporting
10	45 CSR §13, R13-2410, 4.1.6.	Monitoring Testing, Recordkeeping, Reporting

5.2 Monitoring Requirements

5.2.1. For the purpose of determining compliance with the opacity limits of 45CSR6, visible emission

checks of the thermal oxidizer (1C, 2C, 3C) shall be conducted. The visible emission checks shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 C.F.R. Part 60 Appendix A, Method 22 or from the lecture portion of the 40 C.F.R. Part 60, Appendix A, Method 9 certification course.

Visible emission checks shall be conducted on a semi-annual basis. If visible emissions are observed, the permittee shall conduct visible emission checks at least once monthly for three months. If no visible emissions are observed after three months, the permittee may conduct visible emissions checks again on a semi-annual basis. These checks shall be performed at each thermal oxidizer for a sufficient time interval, but no less than one (1) minute, to determine if any visible emissions are present. Visible emission checks shall be performed during periods of facility operation and appropriate weather conditions.

If visible emissions are observed for three (3) consecutive months, the permittee shall conduct an opacity evaluation in accordance with Method 9 of 40 C.F.R. 60 Appendix A, as soon as practicable, but within 72 hours unless the visible emissions are corrected beforehand and the units are operated at normal operating conditions.

[45CSR§30-5.1.c.]

- 5.2.2. The permittee shall install, calibrate, maintain, and continuously operate a device(s) to measure and record each of the pollution control devices' combustion chamber temperatures. All temperature records shall be retained on-site for a period of at least five (5) years and shall be made available to the Secretary or his duly authorized representative upon request. The device for 2C shall have an accuracy of $\pm 2.5^{\circ}\text{C}$ ($\pm 4.5^{\circ}\text{F}$) or ± 0.75 percent of the temperature being measured expressed in degree Celsius. The devices for 1C and 3C shall be certified by the manufacturer to be accurate within plus or minus 1% in degrees Fahrenheit.

[45CSR13, R13-2410, 4.3.5., 1C, 2C and 3C]

- 5.2.4. The permittee shall monitor the Thermal Oxidizer No. 2C combustion temperature throughout the day while Wagner Coater Oven Line #3 (17S) is in operation. When VOC and HAPs are not being processed through the thermal oxidizer, the temperature can be lower than the determined minimum temperature of 1350°F . The temperature monitoring device on the Thermal Oxidizer No. 2C shall have an accuracy of $\pm 2.5^{\circ}\text{C}$ ($\pm 4.5^{\circ}\text{F}$) or ± 0.75 percent of the temperature being measured expressed in degree Celsius (see Section 5.2.2.). The temperature gauge shall be calibrated annually according to manufacturer's specifications and recommendations. ~~An excursion is defined as when the combustion temperature readings are less than the minimum temperature of 1350°F and VOC and HAPs are being processed in the oxidizer.~~ The permittee shall also record all periods (during actual coating operations) in which the average temperature in the incinerator remains below 1350°F for a period in excess of 3 hours. A period of time meeting these aforementioned temperature and time criteria shall be deemed an excursion for purposes of 40 C.F.R. Part 64, thus initiating an inspection and evaluation, corrective action, recordkeeping and reporting requirement (permit conditions 5.2.8., 5.4.7., 5.5.2.)

[45CSR§30-5.1.c; 40 C.F.R. § 64.6 (c)]

- 5.2.6. *Proper maintenance.* At all times, the owner or operator shall maintain the monitoring specified in Sections 5.2.3, 5.2.4, and 5.2.5, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

[45CSR§30-5.1.c; 40 C.F.R. § 64.7 (b)]

- 5.2.7. *Continued operation.* Except for, as applicable, monitoring malfunctions, associated repairs, and

required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

[45CSR§30-5.1.c; 40 C.F.R. § 64.7 (c)]

5.2.8. *Response to excursions or exceedances.*

- a. Upon detecting an excursion or exceedance, the owner or operation shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- b. Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

[45CSR§30-5.1.c; 40 C.F.R. § 64.7 (d)]

5.2.9. *Documentation of need for improved monitoring.* After approval of monitoring under 40 C.F.R. 64, if the owner or operator identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the part 70 or 71 permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

[45CSR§30-5.1.c; 40 C.F.R. § 64.7 (e)]

5.2.10. *Quality Improvement Plan (QIP)*

- a. Based on the results of a determination made under Section 5.2.8.b, the Administrator or the permitting authority may require the owner or operator to develop and implement a QIP. If a QIP is required, then it shall be developed, implemented, and modified as

required according to 40 C.F.R. §§ 64.8 (b) through (e). Refer to Section 5.5.2.b.iii for the reporting required when a QIP is implemented.

- b. If during a calendar quarter, an excursion (as defined under Sections 5.2.3, 5.2.4, and 5.2.5.) occurred on more than five (5) percent of the days that the thermal oxidizer (1C, 2C, or 3C) was operated, the permittee shall develop and implement a QIP. The Director may waive this QIP requirement upon a demonstration that the cause(s) of the excursions have been corrected, or may require stack tests at any time pursuant to Section 3.3.1.

[45CSR§30-5.1.c.; 40 C.F.R. § 64.8]

5.3 Testing Requirements

- 5.3.1. At such reasonable times as the Director may designate, the operator of any incinerator shall be required to conduct or have conducted stack tests to determine the particulate matter loading, by using 40 C.F.R. Part 60, Appendix A, Method 5 or other equivalent EPA approved method approved by the Director, in exhaust gases. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or the Director's authorized representative, may at the Director's option witness or conduct such stack tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices.

[45CSR§6-7.1.]

- 5.3.2. The Director, or the Director's duly authorized representative, may conduct such other tests as the Director may deem necessary to evaluate air pollution emissions other than those noted above.

[45CSR§6-7.2.]

- 5.3.3. See Sections 4.3.1 and 4.3.2 for additional testing.

5.4 Recordkeeping Requirements

- 5.4.1. The permittee shall maintain records of all monitoring data required by Section 5.2.1, documenting the date and time of each visible emission check, the emission point or equipment/source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6 - 10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9. For an emission unit out of service during the evaluation, the record of observation may note "out of service" (O/S) or equivalent

[45CSR§30-5.1.c.]

- 5.4.2. The permittee shall maintain records of the amount of natural gas burned in the thermal oxidizers. Said records shall be maintained on a monthly and 12 month rolling total basis.

[45CSR13, R13-2410, 4.3.6.]

- 5.4.3. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.1, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

[45CSR13, R13-2410, 4.3.2.]

5.4.4. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.1, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

- a. The equipment involved.
- b. Steps taken to minimize emissions during the event.
- c. The duration of the event.
- d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.
- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[45CSR13, R13-2410, 4.3.3.]

5.4.5. The permittee shall maintain the following records in the manner specified under Condition 3.4.2:

- a. Records of the thermal oxidizers' (1C, 2C, and 3C) combustion temperatures shall be continuously recorded and maintained. The temperature monitoring data shall be recorded using either the process distributed control system, operating log, or other equivalent method approved by the Director.
- b. The data collection frequency shall be at least one (1) data point read every sixty (60) seconds by a continuous electronic recorder. Fifteen (15) consecutive data points shall be averaged to generate one (1) recorded datum every complete 15-minute cycle, equivalent to four (4) data points equally spaced over one (1) hour.
- c. The permittee must determine the average of all recorded readings for each successive 3-hour period of the emission control device operation.
- ~~b~~ d. A record of the number, duration and cause(s) of all excursions or exceedances, and the corrective actions taken shall be maintained for the thermal oxidizers (1C, 2C, and 3C).
- ~~e~~ e. A record of the number, duration, and cause for the downtime of the thermal oxidizers' (1C, 2C, and 3C) temperature gauge shall be kept. This excludes downtime for calibration checks. This document shall also include the measures taken to correct the downtime.
- ~~d~~ f. The permittee shall maintain maintenance records on the thermal oxidizers (1C, 2C, and 3C).

[45CSR§30-5.1.c; 40 C.F.R. § 64.9 (b)]

- 5.4.6. The thermal oxidizers' (1C, 2C, and 3C) records of all periodic testing/checks, calibration, and maintenance per manufacturer's specifications and recommendations shall be maintained.

All records shall be maintained in the manner specified in Condition 3.4.2.

[45CSR§30-5.1.c; 40 C.F.R. § 64.9 (b)]

- 5.4.7. *General recordkeeping requirements for 40 C.F.R. Part 64 (CAM).* The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. § 64.8 (Condition 5.2.10) and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40 C.F.R. Part 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

[45CSR§30-5.1.c; 40 C.F.R. § 64.9 (b)]

5.5 Reporting Requirements

- 5.5.1. Any violation(s) of the allowable visible emission requirement for any emission source discovered during observations using 40 C.F.R. Part 60 Appendix A, Method 9 must be reported in writing to the Director of the Division of Air Quality as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.

[45CSR§30-5.1.c.]

- 5.5.2. *General reporting requirements for 40 C.F.R. Part 64 (CAM)*

- a. On and after the date specified in 40 C.F.R. § 64.7 (a) by which the permittee must use monitoring that meets the requirements of 40 C.F.R. Part 64, the permittee shall submit monitoring reports to the DAQ in accordance with Section 3.5.6.
- b. A report for monitoring under 40 C.F.R. Part 64 shall include, at a minimum, the information required under Section 3.5.8 and the following information, as applicable:
 - i. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
 - ii. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
 - iii. A description of the actions taken to implement a QIP during the reporting period as specified in 40 C.F.R. § 64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[45CSR§30-5.1.c; 40 C.F.R. § 64.9 (a)]

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 3C (CD-3)	Emission unit name: Thermal Oxidizer No. 3	List any control devices associated with this emission unit. This is a control device.
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):

Thermal oxidizer for Coating Line No. 4. Emission Points 28E and 29E.

Manufacturer: LTG	Model number: N/A	Serial number: N/A
Construction date: 2001	Installation date: 2001	Modification date(s): N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): N/A

Maximum Hourly Throughput: N/A	Maximum Hourly Throughput: N/A	Maximum Hourly Throughput: N/A
--	--	--

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
Maximum design heat input and/or maximum horsepower rating: 6.0 MM Btu/hr	Type and Btu/hr rating of burners: 6.0 MM Btu/hr

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Natural Gas

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Fuel Type	Max. Sulfur Content
Natural Gas	20 grain/100 scf	Natural Gas	20 grain/100 scf

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH (Uncontrolled/Controlled)	TPY (Uncontrolled/Controlled)
Carbon Monoxide (CO)	0.50/0.50	2.21/2.21
Nitrogen Oxides (NO _x)	0.30/0.30	1.31/1.31
Lead (Pb)	N/A	N/A
Particulate Matter (PM ₁₀) (TSP/2.1)	0.05/0.05	0.20/0.20
Total Particulate Matter (TSP)	0.05/0.05	0.20/0.20
Sulfur Dioxide (SO ₂)	0.01/0.01	0.02/0.02
Volatile Organic Compounds (VOC)	0.03/0.03	0.14/0.14
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total HAPS	0.02/0.02	0.05/0.05*
* Note: Facility wide emissions limit of < 25 TPY combined and <10 TPY Individual HAPs per Permit Condition 4.1.10)		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>AP-42 Emissions Factors, External Combustion Sources (natural gas combustion). See the emissions estimate in Appendix C.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

	Applicable Requirement	Permit Condition Number	Pollutant/Parameter	Limit/Standard
1	45 CSR § 13, R13-2410, 4.1.9.	5.1.1	VOC PM10 CO SO2 NOx	0.03 lb/hr; 0.14TPY 0.05 lb/hr; 0.20 TPY 0.050 lb/hr; 2.21 TPY 0.01 lb/hr; 0.02 TPY 0.30 lb/hr; 0.31TPY
2	45 CSR § 13, R13-2410, 4.1.12.	5.1.2	Maximum Heat Input & Natural Gas Consumption	6MM Btu/hr 52,560 MM Btu/yr 6,000 scf/hr 52.56 MMscf/yr
3	45 CSR § 13, R13-2410, 4.1.13.	5.1.3	Incinerator Temperature	1275 degrees F
4	45 CSR § 6-4.1.	5.1.5	Particulate Matter	0.58 LB/hr
5	45 CSR § 6-4.3.	5.1.6	Opacity	20%
6	45 CSR § 6-4.4.	5.1.7	Opacity	40%
7	45 CSR § 6-4.5.	5.1.8	Particles	Completely burned
8	45 CSR § 6-4.6.	5.1.9	Odors	Objectionable odors
9	45 CSR § 6-8.2.	5.1.10	Emissions	Malfunction
10	45 CSR §13, R13-2410, 4.1.6.	4.1.6	VOC Capture and Control Efficiency	100% Capture efficiency 99% Control efficiency

☒ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

	Applicable Requirement	Monitoring/Testing/Recordkeeping/Reporting
1	45 CSR § 13, R13-2410, 4.1.9.	Recordkeeping, Reporting
2	45 CSR § 13, R13-2410, 4.1.12.	Recordkeeping, Reporting
3	45 CSR § 13, R13-2410, 4.1.13. Permit #: R30-00900012-2012 (MM01)	Monitoring, Recordkeeping, Reporting
4	45 CSR § 6-4.1.	Testing, Recordkeeping, Reporting
5	45 CSR § 6-4.3.	Monitoring, Recordkeeping, Reporting
6	45 CSR § 6-4.4.	Monitoring, Recordkeeping, Reporting
7	45 CSR § 6-4.5.	Testing, Recordkeeping, Reporting
8	45 CSR § 6-4.6.	Recordkeeping
9	45 CSR § 6-8.2.	Monitoring, Recordkeeping, Reporting
10	45 CSR §13, R13-2410, 4.1.6.	Monitoring Testing, Recordkeeping, Reporting

5.2 Monitoring Requirements

5.2.1. For the purpose of determining compliance with the opacity limits of 45CSR6, visible emission

checks of the thermal oxidizer (1C, 2C, 3C) shall be conducted. The visible emission checks shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 C.F.R. Part 60 Appendix A, Method 22 or from the lecture portion of the 40 C.F.R. Part 60, Appendix A, Method 9 certification course.

Visible emission checks shall be conducted on a semi-annual basis. If visible emissions are observed, the permittee shall conduct visible emission checks at least once monthly for three months. If no visible emissions are observed after three months, the permittee may conduct visible emissions checks again on a semi-annual basis. These checks shall be performed at each thermal oxidizer for a sufficient time interval, but no less than one (1) minute, to determine if any visible emissions are present. Visible emission checks shall be performed during periods of facility operation and appropriate weather conditions.

If visible emissions are observed for three (3) consecutive months, the permittee shall conduct an opacity evaluation in accordance with Method 9 of 40 C.F.R. 60 Appendix A, as soon as practicable, but within 72 hours unless the visible emissions are corrected beforehand and the units are operated at normal operating conditions.

[45CSR§30-5.1.c.]

- 5.2.2. The permittee shall install, calibrate, maintain, and continuously operate a device(s) to measure and record each of the pollution control devices' combustion chamber temperatures. All temperature records shall be retained on-site for a period of at least five (5) years and shall be made available to the Secretary or his duly authorized representative upon request. The device for 2C shall have an accuracy of $\pm 2.5^{\circ}\text{C}$ ($\pm 4.5^{\circ}\text{F}$) or ± 0.75 percent of the temperature being measured expressed in degree Celsius. The devices for 1C and 3C shall be certified by the manufacturer to be accurate within plus or minus 1% in degrees Fahrenheit.

[45CSR13, R13-2410, 4.3.5., 1C, 2C and 3C]

- 5.2.5. The permittee shall monitor the Thermal Oxidizer No. 3C combustion temperature throughout the day while LTG Coater Oven Line #4 (18S) is in operation. When VOC and HAPs are not being processed through the thermal oxidizer, the temperature can be lower than the determined minimum temperature of 1275°F . The temperature monitoring device on the Thermal Oxidizer No. 3C shall have an accuracy within plus or minus 1% in degrees Fahrenheit (see Section 5.2.2.). The temperature gauge shall be calibrated annually according to manufacturer's specifications and recommendations. ~~An excursion is defined as when the combustion temperature readings are less than the minimum temperature of 1275°F and VOC and HAPs are being processed in the oxidizer.~~ The permittee shall also record all periods (during actual coating operations) in which the average temperature in the incinerator remains below 1275°F for a period in excess of 3 hours. A period of time meeting these aforementioned temperature and time criteria shall be deemed an excursion for purposes of 40 C.F.R. Part 64, thus initiating an inspection and evaluation, corrective action, recordkeeping and reporting requirement (permit conditions 5.2.8., 5.4.7., 5.5.2.)

[45CSR§30-5.1.c; 40 C.F.R. § 64.6 (c)]

- 5.2.6. *Proper maintenance.* At all times, the owner or operator shall maintain the monitoring specified in Sections 5.2.3, 5.2.4, and 5.2.5, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

[45CSR§30-5.1.c; 40 C.F.R. § 64.7 (b)]

- 5.2.7. *Continued operation.* Except for, as applicable, monitoring malfunctions, associated repairs, and

required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

[45CSR§30-5.1.c; 40 C.F.R. § 64.7 (c)]

5.2.8. *Response to excursions or exceedances.*

- a. Upon detecting an excursion or exceedance, the owner or operation shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- b. Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

[45CSR§30-5.1.c; 40 C.F.R. § 64.7 (d)]

5.2.9. *Documentation of need for improved monitoring.* After approval of monitoring under 40 C.F.R. 64, if the owner or operator identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the part 70 or 71 permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

[45CSR§30-5.1.c; 40 C.F.R. § 64.7 (e)]

5.2.10. *Quality Improvement Plan (QIP)*

- a. Based on the results of a determination made under Section 5.2.8.b, the Administrator or the permitting authority may require the owner or operator to develop and implement a QIP. If a QIP is required, then it shall be developed, implemented, and modified as

required according to 40 C.F.R. §§ 64.8 (b) through (e). Refer to Section 5.5.2.b.iii for the reporting required when a QIP is implemented.

- b. If during a calendar quarter, an excursion (as defined under Sections 5.2.3, 5.2.4, and 5.2.5.) occurred on more than five (5) percent of the days that the thermal oxidizer (1C, 2C, or 3C) was operated, the permittee shall develop and implement a QIP. The Director may waive this QIP requirement upon a demonstration that the cause(s) of the excursions have been corrected, or may require stack tests at any time pursuant to Section 3.3.1.

[45CSR§30-5.1.c.; 40 C.F.R. § 64.8]

5.3 Testing Requirements

- 5.3.1. At such reasonable times as the Director may designate, the operator of any incinerator shall be required to conduct or have conducted stack tests to determine the particulate matter loading, by using 40 C.F.R. Part 60, Appendix A, Method 5 or other equivalent EPA approved method approved by the Director, in exhaust gases. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or the Director's authorized representative, may at the Director's option witness or conduct such stack tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices.

[45CSR§6-7.1.]

- 5.3.2. The Director, or the Director's duly authorized representative, may conduct such other tests as the Director may deem necessary to evaluate air pollution emissions other than those noted above.

[45CSR§6-7.2.]

- 5.3.3. See Sections 4.3.1 and 4.3.2 for additional testing.

5.4 Recordkeeping Requirements

- 5.4.1. The permittee shall maintain records of all monitoring data required by Section 5.2.1, documenting the date and time of each visible emission check, the emission point or equipment/source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6 - 10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9. For an emission unit out of service during the evaluation, the record of observation may note "out of service" (O/S) or equivalent

[45CSR§30-5.1.c.]

- 5.4.2. The permittee shall maintain records of the amount of natural gas burned in the thermal oxidizers. Said records shall be maintained on a monthly and 12 month rolling total basis.

[45CSR13, R13-2410, 4.3.6.]

- 5.4.3. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.1, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

[45CSR13, R13-2410, 4.3.2.]

5.4.4. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.1, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

- a. The equipment involved.
- b. Steps taken to minimize emissions during the event.
- c. The duration of the event.
- d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.
- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[45CSR13, R13-2410, 4.3.3.]

5.4.5. The permittee shall maintain the following records in the manner specified under Condition 3.4.2:

- a. Records of the thermal oxidizers' (1C, 2C, and 3C) combustion temperatures shall be continuously recorded and maintained. The temperature monitoring data shall be recorded using either the process distributed control system, operating log, or other equivalent method approved by the Director.
- b. The data collection frequency shall be at least one (1) data point read every sixty (60) seconds by a continuous electronic recorder. Fifteen (15) consecutive data points shall be averaged to generate one (1) recorded datum every complete 15-minute cycle, equivalent to four (4) data points equally spaced over one (1) hour.
- c. The permittee must determine the average of all recorded readings for each successive 3-hour period of the emission control device operation.
- ~~b~~ d. A record of the number, duration and cause(s) of all excursions or exceedances, and the corrective actions taken shall be maintained for the thermal oxidizers (1C, 2C, and 3C).
- ~~e~~ e. A record of the number, duration, and cause for the downtime of the thermal oxidizers' (1C, 2C, and 3C) temperature gauge shall be kept. This excludes downtime for calibration checks. This document shall also include the measures taken to correct the downtime.
- ~~d~~ f. The permittee shall maintain maintenance records on the thermal oxidizers (1C, 2C, and 3C).

[45CSR§30-5.1.c; 40 C.F.R. § 64.9 (b)]

5.4.6. The thermal oxidizers' (1C, 2C, and 3C) records of all periodic testing/checks, calibration, and maintenance per manufacturer's specifications and recommendations shall be maintained.

All records shall be maintained in the manner specified in Condition 3.4.2.

[45CSR§30-5.1.c; 40 C.F.R. § 64.9 (b)]

- 5.4.7. *General recordkeeping requirements for 40 C.F.R. Part 64 (CAM).* The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. § 64.8 (Condition 5.2.10) and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40 C.F.R. Part 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

[45CSR§30-5.1.c; 40 C.F.R. § 64.9 (b)]

5.5 Reporting Requirements

- 5.5.1. Any violation(s) of the allowable visible emission requirement for any emission source discovered during observations using 40 C.F.R. Part 60 Appendix A, Method 9 must be reported in writing to the Director of the Division of Air Quality as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.

[45CSR§30-5.1.c.]

- 5.5.2. *General reporting requirements for 40 C.F.R. Part 64 (CAM)*

- a. On and after the date specified in 40 C.F.R. § 64.7 (a) by which the permittee must use monitoring that meets the requirements of 40 C.F.R. Part 64, the permittee shall submit monitoring reports to the DAQ in accordance with Section 3.5.6.
- b. A report for monitoring under 40 C.F.R. Part 64 shall include, at a minimum, the information required under Section 3.5.8 and the following information, as applicable:
 - i. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
 - ii. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
 - iii. A description of the actions taken to implement a QIP during the reporting period as specified in 40 C.F.R. § 64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[45CSR§30-5.1.c; 40 C.F.R. § 64.9 (a)]

ATTACHMENT G

AIR POLLUTION CONTROL DEVICE FORMS

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number:
1C (CD-1)

List all emission units associated with this control device.
1S (C1) and 2S (C2)

Manufacturer:
Wagner

Model number:
N/A

Installation date:
1979

Type of Air Pollution Control Device:

<input type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input checked="" type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
VOC and HAPs	100%	95%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Temperature to be set at 1,400 degrees F.

Is this device subject to the CAM requirements of 40 C.F.R. 64? ☐ Yes ☒ No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Temperature of the device is to remain at a point to destroy VOC and HAP emissions from the coating ovens.

ATTACHMENT G - Air Pollution Control Device Form		
Control device ID number: 2C (CD-2)	List all emission units associated with this control device. 17S (C3)	
Manufacturer: LTG	Model number: N/A	Installation date: 1997
Type of Air Pollution Control Device:		
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input type="checkbox"/> Baghouse/Fabric Filter</div> <div style="width: 33%;"><input type="checkbox"/> Venturi Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Multiclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Bed Adsorber</div> <div style="width: 33%;"><input type="checkbox"/> Packed Tower Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Single Cyclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Drum(s)</div> <div style="width: 33%;"><input type="checkbox"/> Other Wet Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Cyclone Bank</div> <div style="width: 33%;"><input type="checkbox"/> Catalytic Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Condenser</div> <div style="width: 33%;"><input type="checkbox"/> Settling Chamber</div> <div style="width: 33%;"><input checked="" type="checkbox"/> Thermal Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Flare</div> <div style="width: 33%;"><input type="checkbox"/> Other (describe) _____</div> <div style="width: 33%;"><input type="checkbox"/> Wet Plate Electrostatic Precipitator</div> <div style="width: 33%;"><input type="checkbox"/> Dry Plate Electrostatic Precipitator</div> </div>		
List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
VOC and HAPs	100%	98%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).		
Temperature to be set at 1,350 degrees F.		
Is this device subject to the CAM requirements of 40 C.F.R. 64? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
If Yes, Complete ATTACHMENT H If No, Provide justification.		
Describe the parameters monitored and/or methods used to indicate performance of this control device.		
Temperature of the device is to remain at a point to destroy VOC and HAP emissions from the coating ovens.		

ATTACHMENT G - Air Pollution Control Device Form		
Control device ID number: 3C (CD-3)	List all emission units associated with this control device. 18S (C4)	
Manufacturer: LTG	Model number: N/A	Installation date: 2001
Type of Air Pollution Control Device:		
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input type="checkbox"/> Baghouse/Fabric Filter</div> <div style="width: 33%;"><input type="checkbox"/> Venturi Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Multiclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Bed Adsorber</div> <div style="width: 33%;"><input type="checkbox"/> Packed Tower Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Single Cyclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Drum(s)</div> <div style="width: 33%;"><input type="checkbox"/> Other Wet Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Cyclone Bank</div> <div style="width: 33%;"><input type="checkbox"/> Catalytic Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Condenser</div> <div style="width: 33%;"><input type="checkbox"/> Settling Chamber</div> <div style="width: 33%;"><input checked="" type="checkbox"/> Thermal Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Flare</div> <div style="width: 33%;"><input type="checkbox"/> Other (describe) _____</div> <div style="width: 33%;"><input type="checkbox"/> Wet Plate Electrostatic Precipitator</div> <div style="width: 33%;"><input type="checkbox"/> Dry Plate Electrostatic Precipitator</div> </div>		
List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
VOC and HAPs	100%	99%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).		
Temperature to be set at 1,275 degrees F.		
Is this device subject to the CAM requirements of 40 C.F.R. 64? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
If Yes, Complete ATTACHMENT H If No, Provide justification.		
Describe the parameters monitored and/or methods used to indicate performance of this control device.		
Temperature of the device is to remain at a point to destroy VOC and HAP emissions from the coating ovens.		

ATTACHMENT H

COMPLIANCE ASSURANCE MONITORING (CAM) PLAN FORM

ATTACHMENT H - Compliance Assurance Monitoring (CAM) Plan Form

For definitions and information about the CAM rule, please refer to 40 CFR Part 64. Additional information (including guidance documents) may also be found at <http://www.epa.gov/ttn/emc/cam.html>

CAM APPLICABILITY DETERMINATION

1) Does the facility have a PSEU (Pollutant-Specific Emissions Unit considered separately with respect to **EACH** regulated air pollutant) that is subject to CAM (40 CFR Part 64), which must be addressed in this CAM plan submittal? To determine applicability, a PSEU must meet **all** of the following criteria (*If No, then the remainder of this form need not be completed*): ☒ YES ☐ NO

- a. The PSEU is located at a major source that is required to obtain a Title V permit;
- b. The PSEU is subject to an emission limitation or standard for the applicable regulated air pollutant that is **NOT** exempt;

LIST OF EXEMPT EMISSION LIMITATIONS OR STANDARDS:

- NSPS (40 CFR Part 60) or NESHAP (40 CFR Parts 61 and 63) proposed after 11/15/1990.
 - Stratospheric Ozone Protection Requirements.
 - Acid Rain Program Requirements.
 - Emission Limitations or Standards for which a WVDEP Division of Air Quality Title V permit specifies a continuous compliance determination method, as defined in 40 CFR §64.1.
 - An emission cap that meets the requirements specified in 40 CFR §70.4(b)(12).
- c. The PSEU uses an add-on control device (as defined in 40 CFR §64.1) to achieve compliance with an emission limitation or standard;
 - d. The PSEU has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than the Title V Major Source Threshold Levels; AND
 - e. The PSEU is **NOT** an exempt backup utility power emissions unit that is municipally-owned.

BASIS OF CAM SUBMITTAL

2) Mark the appropriate box below as to why this CAM plan is being submitted as part of an application for a Title V permit:

☒ **RENEWAL APPLICATION.** **ALL** PSEUs for which a CAM plan has **NOT** yet been approved need to be addressed in this CAM plan submittal.

☐ **INITIAL APPLICATION** (submitted after 4/20/98). **ONLY** large PSEUs (i. e., PSEUs with potential post-control device emissions of an applicable regulated air pollutant that are equal to or greater than Major Source Threshold Levels) need to be addressed in this CAM plan submittal.

☐ **SIGNIFICANT MODIFICATION TO LARGE PSEUs.** **ONLY** large PSEUs being modified after 4/20/98 need to be addressed in this cam plan submittal. For large PSEUs with an approved CAM plan, **Only** address the appropriate monitoring requirements affected by the significant modification.

3) ^a BACKGROUND DATA AND INFORMATION

Complete the following table for **all** PSEUs that need to be addressed in this CAM plan submittal. This section is to be used to provide background data and information for each PSEU in order to supplement the submittal requirements specified in 40 CFR §64.4. If additional space is needed, attach and label accordingly.

PSEU DESIGNATION	DESCRIPTION	POLLUTANT	CONTROL DEVICE	^b EMISSION LIMITATION or STANDARD	^c MONITORING REQUIREMENT
Coater Line 1S	Coater Oven Line	VOC	Thermal Oxidizer 1C	14.83 lb/hr (80.90 TPY combined emissions for 1S, 2S, 3S and 4S); Permit Condition 4.1.9	Monitor combustion chamber temperature of thermal oxidizer Annual calibration of temperature gauge (Permit condition 5.2.3)
Coater Line 2S	Coater Oven Line	VOC	Thermal Oxidizer 1C	14.83 lb/hr (80.90 TPY combined emissions for 1S, 2S, 3S and 4S) ; Permit Condition 4.1.9	Monitor combustion chamber temperature of thermal oxidizer Annual calibration of temperature gauge (Permit Condition 5.2.3)
Coater Line 3S	Coater Oven Line	VOC	Thermal Oxidizer 2C	6.10 lb/hr (80.90 TPY combined emissions for 1S, 2S, 3S and 4S) ; Permit Condition 4.1.9	Monitor combustion chamber temperature of thermal oxidizer Annual calibration of temperature gauge (Permit Condition 5.2.4)
Coater Line 4S	Coater Oven Line	VOC	Thermal Oxidizer 3C	3.05 lb/hr (80.90 TPY combined emissions for 1S, 2S, 3S and 4S) ; Permit Condition 4.1.9	Monitor combustion chamber temperature of thermal oxidizer Annual calibration of temperature gauge (Permit Condition 5.2.5)
PSEUs in CAM Plan addressed in 4) through 8) below are for Control Devices 1C, 2C, and 3C					
<u>EXAMPLE</u> Boiler No. 1	Wood-Fired Boiler	PM	Multiclone	45CSR§2-4.1.c.; 9.0 lb/hr	Monitor pressure drop across multiclone: Weekly inspection of multiclone

^a If a control device is common to more than one PSEU, one monitoring plan may be submitted for the control device with the affected PSEUs identified and any conditions that must be maintained or monitored in accordance with 40 CFR §64.3(a). If a single PSEU is controlled by more than one control device similar in design and operation, one monitoring plan for the applicable control devices may be submitted with the applicable control devices identified and any conditions that must be maintained or monitored in accordance with 40 CFR §64.3(a).

^b Indicate the emission limitation or standard for any applicable requirement that constitutes an emission limitation, emission standard, or standard of performance (as defined in 40 CFR §64.1).

^c Indicate the monitoring requirements for the PSEU that are required by an applicable regulation or permit condition.

CAM MONITORING APPROACH CRITERIA

Complete this section for EACH PSEU that needs to be addressed in this CAM plan submittal. This section may be copied as needed for each PSEU. This section is to be used to provide monitoring data and information for EACH indicator selected for EACH PSEU in order to meet the monitoring design criteria specified in 40 CFR §64.3 and §64.4. If more than two indicators are being selected for a PSEU or if additional space is needed, attach and label accordingly with the appropriate PSEU designation, pollutant, and indicator numbers.

4a) PSEU Designation: Thermal Oxidizer 1C	4b) Pollutant: VOC	4c) ^a Indicator No. 1: Combustion Chamber Temperature	4d) ^a Indicator No. 2:
5a) GENERAL CRITERIA Describe the <u>MONITORING APPROACH</u> used to measure the indicators:		The combustion chamber temperature is monitored with a thermocouple	
^b Establish the appropriate <u>INDICATOR RANGE</u> or the procedures for establishing the indicator range which provides a reasonable assurance of compliance:		An excursion is defined as temperature readings less than the determined minimum temperature for a period in excess of 3 hours when VOC and HAPs are being processed in the oxidizer. (Sections 5.1.4 and 5.2.3). Excursion trigger an inspection and evaluation, corrective action, recordkeeping and reporting requirements (permit conditions 5.2.8)	
5b) PERFORMANCE CRITERIA Provide the <u>SPECIFICATIONS FOR OBTAINING REPRESENTATIVE DATA</u> , such as detector location, installation specifications, and minimum acceptable accuracy:		Combustion chamber temperature measured using a thermocouple with an accuracy of plus or minus 1% in degrees Fahrenheit. (Section 5.2.2).	
^c For new or modified monitoring equipment, provide <u>VERIFICATION PROCEDURES</u> , including manufacturer's recommendations, <u>TO CONFIRM THE OPERATIONAL STATUS</u> of the monitoring:		N/A	
Provide <u>QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC) PRACTICES</u> that are adequate to ensure the continuing validity of the data, (i.e., daily calibrations, visual inspections, routine maintenance, RATA, etc.):		The temperature gauge shall be calibrated annually (Section 5.2.3)	
^d Provide the <u>MONITORING FREQUENCY</u> :		Measured continuously while the Coating Lines #1 and #2 are operating (Section 5.2.3)	
Provide the <u>DATA COLLECTION PROCEDURES</u> that will be used:		Data points collected at least every 60 seconds (Section 5.4.5)	
Provide the <u>DATA AVERAGING PERIOD</u> for the purpose of determining whether an excursion or exceedance has occurred:		15 consecutive points averaged for 15 minute interval. One average number is recorded every 15 minutes and four numbers are recorded per hour at evenly spaced intervals	

^a Describe all indicators to be monitored which satisfies 40 CFR §64.3(a). Indicators of emission control performance for the control device and associated capture system may include measured or predicted emissions (including visible emissions or opacity), process and control device operating parameters that affect control device (and capture system) efficiency or emission rates, or recorded findings of inspection and maintenance activities.

- ^b Indicator Ranges may be based on a single maximum or minimum value or at multiple levels that are relevant to distinctly different operating conditions, expressed as a function of process variables, expressed as maintaining the applicable indicator in a particular operational status or designated condition, or established as interdependent between more than one indicator. For CEMS, COMS, or PEMS, include the most recent certification test for the monitor.
- ^c The verification for operational status should include procedures for installation, calibration, and operation of the monitoring equipment, conducted in accordance with the manufacturer's recommendations, necessary to confirm the monitoring equipment is operational prior to the commencement of the required monitoring.
- ^d Emission units with post-control PTE ≥ 100 percent of the amount classifying the source as a major source (i.e., Large PSEU) must collect four or more values per hour to be averaged. A reduced data collection frequency may be approved in limited circumstances. Other emission units must collect data at least once per 24 hour period.

RATIONALE AND JUSTIFICATION

Complete this section for **EACH** PSEU that needs to be addressed in this CAM plan submittal. This section may be copied as needed for each PSEU. This section is to be used to provide rationale and justification for the selection of **EACH** indicator and monitoring approach and **EACH** indicator range in order to meet the submittal requirements specified in 40 CFR §64.4.

6a) PSEU Designation:
Thermal Oxidizer 1C

6b) Regulated Air Pollutant:
VOC

7) **INDICATORS AND THE MONITORING APPROACH:** Provide the rationale and justification for the selection of the indicators and the monitoring approach used to measure the indicators. Also provide any data supporting the rationale and justification. Explain the reasons for any differences between the verification of operational status or the quality assurance and control practices proposed, and the manufacturer's recommendations. (If additional space is needed, attach and label accordingly with the appropriate PSEU designation and pollutant):

The incinerator chamber temperature (1400° F based on most recent stack test) was selected because it is indicative of the thermal incinerator operations (combustion occurring within the chamber) and was verified by the control efficiency tests performed on December 6, 7, and 8, 2011. During these tests, three one hour tests in accordance with Method 1 measured the velocities at the two inlets, two preheats, and two outlets. The VOC concentrations at the inlet ducts and outlet stacks were determined with Method 25A. This approach utilized Flame Ionization Analyzers simultaneously measuring inlet and outlet VOC concentrations.

The operating lines operate at a set point temperature of 1425° F, approximately 25° F higher than the mandated minimum sheet feed temperature. The lines will not be able to process sheets if it does not meet the set point temperature of 1425° F. If the chamber temperature decreases significantly, complete combustion may not occur. It has been shown that the control efficiency achieved by a thermal incinerator is a function of its operating temperature, or outlet temperature. By maintaining the operating temperature at or above a minimum, a level of control efficiency is expected to be achieved.

In addition to operating the chamber at a higher temperature, additional work practices are performed on the equipment to ensure proper burn and operation. The temperature gauge is calibrated annually, and the incinerator and burner are inspected during every oven cleaning event. During these cleaning events, the holes in the burner are cleaned and the interior insulation and the heat exchanger tube are inspected.

8) **INDICATOR RANGES:** Provide the rationale and justification for the selection of the indicator ranges. The rationale and justification shall indicate how **EACH** indicator range was selected by either a **COMPLIANCE OR PERFORMANCE TEST**, a **TEST PLAN AND SCHEDULE**, or by **ENGINEERING ASSESSMENTS**. Depending on which method is being used for each indicator range, include the specific information required below for that specific indicator range. (If additional space is needed, attach and label accordingly with the appropriate PSEU designation and pollutant):

- **COMPLIANCE OR PERFORMANCE TEST** (Indicator ranges determined from control device operating parameter data obtained during a compliance or performance test conducted under regulatory specified conditions or under conditions representative of maximum potential emissions under anticipated operating conditions. Such data may be supplemented by engineering assessments and manufacturer's recommendations). The rationale and justification shall **INCLUDE** a summary of the compliance or performance test results that were used to determine the indicator range, and documentation indicating that no changes have taken place that could result in a significant change in the control system performance or the selected indicator ranges since the compliance or performance test was conducted.
- **TEST PLAN AND SCHEDULE** (Indicator ranges will be determined from a proposed implementation plan and schedule for installing, testing, and performing any other appropriate activities prior to use of the monitoring). The rationale and justification shall **INCLUDE** the proposed implementation plan and schedule that will provide for use of the monitoring as expeditiously as practicable after approval of this CAM plan, except that in no case shall the schedule for completing installation and beginning operation of the monitoring exceed 180 days after approval.

- ENGINEERING ASSESSMENTS (Indicator Ranges or the procedures for establishing indicator ranges are determined from engineering assessments and other data, such as manufacturers' design criteria and historical monitoring data, because factors specific to the type of monitoring, control device, or PSEU make compliance or performance testing unnecessary). The rationale and justification shall INCLUDE documentation demonstrating that compliance testing is not required to establish the indicator range.

RATIONALE AND JUSTIFICATION:

The selected indicator range for the incinerator combustion chamber temperature is 1400°F during a 3-hour block period. Permit Condition 5.2.3 of R30-00900012-2012 specifies that the combustion chamber temperature for 1C shall be established during the most recent performance test, which was established at 1400°F. At this temperature it is expected to achieve a 95% or greater destruction efficiency as required by Permit Condition 4.1.6. The incinerator employs a temperature controller that maintains the desired temperature by using a natural-gas fired auxiliary burner. The temperature controller is set to maintain a temperature at 1400°F to ensure destruction efficiency is maintained. The sheet feed will shut down if the temperature of the combustion chamber reaches 1400°F. Historical monitoring data shows that the incinerator can be maintained at this temperature on a routine basis with only very brief excursions.

The performance test was conducted in December 6,7, and 8, 2011 using EPA Method 25 to test the destruction and control efficiency of the three recuperative thermal oxidizer at Ardagh. Over three test, thermal oxidizer, 1C, had an average destruction efficiency of 99.6%. A copy of the test report was sent to the Division of Air Quality upon completion. These tests confirm acceptable performance of the incinerator and an average control efficiency was achieved over the three runs

The definition of excursion is established based on the results of the most recent stack test for a period in excess of the 3-hour block period. The average 3-hour block period is an operating limit referenced in Table 4 of 40 C.F.R.63 Subpart KKKK. The facility is not subpart to this subpart because they operate as a synthetic minor source under 40 C.F.R. Part 63 Subpart KKKK (See Section 3.7 of R30-00900012-2012, Permit Shield); however, this is considered a standard industry operating limit.

Monitoring frequency, data collection, and averaging period consistent with the characteristics and typical variability of the emissions unit and commensurate with the time period over which an exceedance or excursion is likely to occur. The analyzer will measure the temperature at 1 minute intervals, and the average value for each 15-minute period will be recorded. The 15-minute values for each clock-hour will be averaged to provide a 1-hour temperature reading to assess compliance with the indicator range. This averaging approach is consistent with 40 C.F.R. 60.13 Monitoring Requirements for CEMs and with the averaging periods outlined in the EPA's CAM Technical Guidance Document. This method of monitoring is also consistent with compliance stack testing performed methods performed at the facility.

CAM MONITORING APPROACH CRITERIA

Complete this section for **EACH** PSEU that needs to be addressed in this CAM plan submittal. This section may be copied as needed for each PSEU. This section is to be used to provide monitoring data and information for **EACH** indicator selected for **EACH** PSEU in order to meet the monitoring design criteria specified in 40 CFR §64.3 and §64.4. If more than two indicators are being selected for a PSEU or if additional space is needed, attach and label accordingly with the appropriate PSEU designation, pollutant, and indicator numbers.

4a) PSEU Designation: Thermal Oxidizer 2C	4b) Pollutant: VOC	4c) ^a Indicator No. 1: Combustion Chamber Temperature	4d) ^a Indicator No. 2:
5a) GENERAL CRITERIA Describe the <u>MONITORING APPROACH</u> used to measure the indicators:		The combustion chamber temperature is monitored with a thermocouple	
^b Establish the appropriate <u>INDICATOR RANGE</u> or the procedures for establishing the indicator range which provides a reasonable assurance of compliance:		An excursion is defined as temperature readings less than 1350°F for a period in excess of 3 hours when VOC and HAPs are being processed in the oxidizer. (Sections 5.1.3 and 5.2.4). Excursion trigger an inspection and evaluation, corrective action, recordkeeping and reporting requirements (permit conditions 5.2.8)	
5b) PERFORMANCE CRITERIA Provide the <u>SPECIFICATIONS FOR OBTAINING REPRESENTATIVE DATA</u> , such as detector location, installation specifications, and minimum acceptable accuracy:		Combustion chamber temperature measured using a thermocouple with an accuracy of ± 2.5 °C (± 4.5 °F) or ± 0.75 percent of the temperature being measured expressed in degree Celsius. (Section 5.2.2).	
^c For new or modified monitoring equipment, provide <u>VERIFICATION PROCEDURES</u> , including manufacturer's recommendations, <u>TO CONFIRM THE OPERATIONAL STATUS</u> of the monitoring:		N/A	
Provide <u>QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC) PRACTICES</u> that are adequate to ensure the continuing validity of the data, (i.e., daily calibrations, visual inspections, routine maintenance, RATA, etc.):		The temperature gauge shall be calibrated annually (Section 5.2.4)	
^d Provide the <u>MONITORING FREQUENCY</u> :		Measured continuously while the Coating Line No. 3 is operating. (Section 5.2.4)	
Provide the <u>DATA COLLECTION PROCEDURES</u> that will be used:		Data points collected at least every 60 seconds (Section 5.4.5)	
Provide the <u>DATA AVERAGING PERIOD</u> for the purpose of determining whether an excursion or exceedance has occurred:		15 consecutive points averaged for 15 minute interval. One average number is recorded every 15 minutes and four numbers are recorded per hour at evenly spaced intervals	

- ^a Describe all indicators to be monitored which satisfies 40 CFR §64.3(a). Indicators of emission control performance for the control device and associated capture system may include measured or predicted emissions (including visible emissions or opacity), process and control device operating parameters that affect control device (and capture system) efficiency or emission rates, or recorded findings of inspection and maintenance activities.
- ^b Indicator Ranges may be based on a single maximum or minimum value or at multiple levels that are relevant to distinctly different operating conditions, expressed as a function of process variables, expressed as maintaining the applicable indicator in a particular operational status or designated condition, or established as interdependent between more than one indicator. For CEMS, COMS, or PEMS, include the most recent certification test for the monitor.
- ^c The verification for operational status should include procedures for installation, calibration, and operation of the monitoring equipment, conducted in accordance with the manufacturer's recommendations, necessary to confirm the monitoring equipment is operational prior to the commencement of the required monitoring.
- ^d Emission units with post-control PTE ≥ 100 percent of the amount classifying the source as a major source (i.e., Large PSEU) must collect four or more values per hour to be averaged. A reduced data collection frequency may be approved in limited circumstances. Other emission units must collect data at least once per 24 hour period.

RATIONALE AND JUSTIFICATION	
<p>Complete this section for <u>EACH</u> PSEU that needs to be addressed in this CAM plan submittal. This section may be copied as needed for each PSEU. This section is to be used to provide rationale and justification for the selection of <u>EACH</u> indicator and monitoring approach and <u>EACH</u> indicator range in order to meet the submittal requirements specified in 40 CFR §64.4.</p>	
<p>6a) PSEU Designation: Thermal Oxidizer 2C</p>	<p>6b) Regulated Air Pollutant: VOC</p>
<p>7) <u>INDICATORS AND THE MONITORING APPROACH:</u> Provide the rationale and justification for the selection of the indicators and the monitoring approach used to measure the indicators. Also provide any data supporting the rationale and justification. Explain the reasons for any differences between the verification of operational status or the quality assurance and control practices proposed, and the manufacturer's recommendations. (If additional space is needed, attach and label accordingly with the appropriate PSEU designation and pollutant):</p> <p>The incinerator chamber temperature of 1350° F was selected because it is indicative of the thermal incinerator operations (combustion occurring within the chamber) and is listed as the minimum combustion operating temperature in 5.1.3 of the permit. This temperature was verified by the destruction efficiency tests performed on December 6, 7, and 8, 201. During these tests, three one hour tests in accordance with Method 1 measured the velocities at the inlet, outlet, and wicket preheat. The VOC concentrations at the inlet ducts and outlet stacks were determined with Method 25A. This approach utilized Flame Ionization Analyzers simultaneously measuring inlet and outlet VOC concentrations.</p> <p>The operating lines operate at a set point temperature of 1400° F, 50° F higher than the mandated minimum sheet feed temperature. The lines will not be able to process sheets if it does not meet the set point temperature of 1400° F. If the chamber temperature decreases significantly, complete combustion may not occur. It has been shown that the control efficiency achieved by a thermal incinerator is a function of its operating temperature, or outlet temperature. By maintaining the operating temperature at or above a minimum, a level of control efficiency is expected to be achieved.</p> <p>In addition to operating the chamber at a higher temperature, additional work practices are performed on the equipment to ensure proper burn and operation. The burner cone, combustion chamber area, and the heat exchanger tubes are inspected annually. The temperature gauge is calibrated annually to ensure it is operating at proper temperatures.</p>	
<p>8) <u>INDICATOR RANGES:</u> Provide the rationale and justification for the selection of the indicator ranges. The rationale and justification shall indicate how <u>EACH</u> indicator range was selected by either a <u>COMPLIANCE OR PERFORMANCE TEST</u>, a <u>TEST PLAN AND SCHEDULE</u>, or by <u>ENGINEERING ASSESSMENTS</u>. Depending on which method is being used for each indicator range, include the specific information required below for that specific indicator range. (If additional space is needed, attach and label accordingly with the appropriate PSEU designation and pollutant):</p> <ul style="list-style-type: none"> • <u>COMPLIANCE OR PERFORMANCE TEST</u> (Indicator ranges determined from control device operating parameter data obtained during a compliance or performance test conducted under regulatory specified conditions or under conditions representative of maximum potential emissions under anticipated operating conditions. Such data may be supplemented by engineering assessments and manufacturer's recommendations). The rationale and justification shall <u>INCLUDE</u> a summary of the compliance or performance test results that were used to determine the indicator range, and documentation indicating that no changes have taken place that could result in a significant change in the control system performance or the selected indicator ranges since the compliance or performance test was conducted. 	

- TEST PLAN AND SCHEDULE (Indicator ranges will be determined from a proposed implementation plan and schedule for installing, testing, and performing any other appropriate activities prior to use of the monitoring). The rationale and justification shall INCLUDE the proposed implementation plan and schedule that will provide for use of the monitoring as expeditiously as practicable after approval of this CAM plan, except that in no case shall the schedule for completing installation and beginning operation of the monitoring exceed 180 days after approval.
- ENGINEERING ASSESSMENTS (Indicator Ranges or the procedures for establishing indicator ranges are determined from engineering assessments and other data, such as manufacturers' design criteria and historical monitoring data, because factors specific to the type of monitoring, control device, or PSEU make compliance or performance testing unnecessary). The rationale and justification shall INCLUDE documentation demonstrating that compliance testing is not required to establish the indicator range.

RATIONALE AND JUSTIFICATION:

The selected indicator range for the incinerator combustion chamber temperature is 1350°F during a 3-hour block period. Permit Condition 5.2.4 of R30-00900012-2012 specifies that the minimum combustion chamber temperature for 2C shall be 1350°F. At this temperature it is expected to achieve a 98% or greater destruction efficiency as required by Permit Condition 4.1.6. The incinerator employs a temperature controller that maintains the desired temperature by using a natural-gas fired auxiliary burner. The temperature controller is set to maintain a temperature at 1400°F to ensure destruction efficiency is maintained. The sheet feed will shut down if the temperature of the combustion chamber reaches 1350°F. Historical monitoring data shows that the incinerator can be maintained at this temperature on a routine basis with only very brief excursions.

The performance test was conducted in December 6,7, and 8, 2011 using EPA Method 25 to test the destruction and control efficiency of the three recuperative thermal oxidizer at Ardagh.. Over three test, thermal oxidizer, 2C, had an average destruction efficiency of 99.5%. A copy of the test report was sent to the Division of Air Quality upon completion. These tests confirm acceptable performance of the incinerator and an average control efficiency was achieved over the three runs.

The definition of excursion is established based on the results of the most recent stack test for a period in excess of the 3-hour block period. The average 3-hour block period is an operating limit referenced in Table 4 of 40 C.F.R.63 Subpart KKKK. The facility is not subpart to this subpart because they operate as a synthetic minor source under 40 C.F.R. Part 63 Subpart KKKK (See Section 3.7 of R30-00900012-2012, Permit Shield); however, this is considered a standard industry operating limit.

Monitoring frequency, data collection, and averaging period consistent with the characteristics and typical variability of the emissions unit and commensurate with the time period over which an exceedance or excursion is likely to occur. The analyzer will measure the temperature at 1 minute intervals, and the average value for each 15-minute period will be recorded. The 15-minute values for each clock-hour will be averaged to provide a 1-hour temperature reading to assess compliance with the indicator range. This averaging approach is consistent with 40 C.F.R. 60.13 Monitoring Requirements for CEMs and with the averaging periods outlined in the EPA's CAM Technical Guidance Document. This method of monitoring is also consistent with compliance stack testing performed methods performed at the facility.

CAM MONITORING APPROACH CRITERIA

Complete this section for EACH PSEU that needs to be addressed in this CAM plan submittal. This section may be copied as needed for each PSEU. This section is to be used to provide monitoring data and information for EACH indicator selected for EACH PSEU in order to meet the monitoring design criteria specified in 40 CFR §64.3 and §64.4. if more than two indicators are being selected for a PSEU or if additional space is needed, attach and label accordingly with the appropriate PSEU designation, pollutant, and indicator numbers.

4a) PSEU Designation: Thermal Oxidizer 3C	4b) Pollutant: VOC	4c) ^a Indicator No. 1: Combustion Chamber temperature	4d) ^a Indicator No. 2:
5a) GENERAL CRITERIA Describe the <u>MONITORING APPROACH</u> used to measure the indicators:		The combustion chamber temperature is monitored with a thermocouple	
^b Establish the appropriate <u>INDICATOR RANGE</u> or the procedures for establishing the indicator range which provides a reasonable assurance of compliance:		An excursion is defined as temperature readings less than 1275°F for a period in excess of 3 hours when VOC and HAPs are being processed in the oxidizer. (Sections 5.1.3 and 5.2.5). Excursion trigger an inspection and evaluation, corrective action, recordkeeping and reporting requirements (permit conditions 5.2.8)	
5b) PERFORMANCE CRITERIA Provide the <u>SPECIFICATIONS FOR OBTAINING REPRESENTATIVE DATA</u> , such as detector location, installation specifications, and minimum acceptable accuracy:		Combustion chamber temperature measured using a thermocouple with an accuracy plus or minus 1% in degrees Fahrenheit. (Section 5.2.2)	
^c For new or modified monitoring equipment, provide <u>VERIFICATION PROCEDURES</u> , including manufacturer's recommendations, <u>TO CONFIRM THE OPERATIONAL STATUS</u> of the monitoring:		N/A	
Provide <u>QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC) PRACTICES</u> that are adequate to ensure the continuing validity of the data, (i.e., daily calibrations, visual inspections, routine maintenance, RATA, etc.):		The temperature gauge shall be calibrated annually (Section 5.2.5)	
^d Provide the <u>MONITORING FREQUENCY</u> :		Measured continuously while Coating Lines #4 is operating (section 5.2.5)	
Provide the <u>DATA COLLECTION PROCEDURES</u> that will be used:		Data points collected at least every 60 seconds (Section 5.4.5)	
Provide the <u>DATA AVERAGING PERIOD</u> for the purpose of determining whether an excursion or exceedance has occurred:		15 consecutive points averaged for 15 minute interval. One average number is recorded every 15 minutes and four numbers are recorded per hour at evenly spaced intervals	

^a Describe all indicators to be monitored which satisfies 40 CFR §64.3(a). Indicators of emission control performance for the control device and associated capture system may include measured or predicted emissions (including visible emissions or opacity), process and control device operating parameters that affect control device (and capture system) efficiency or emission rates, or recorded findings of inspection and maintenance activities.

- ^b Indicator Ranges may be based on a single maximum or minimum value or at multiple levels that are relevant to distinctly different operating conditions, expressed as a function of process variables, expressed as maintaining the applicable indicator in a particular operational status or designated condition, or established as interdependent between more than one indicator. For CEMS, COMS, or PEMS, include the most recent certification test for the monitor.
- ^c The verification for operational status should include procedures for installation, calibration, and operation of the monitoring equipment, conducted in accordance with the manufacturer's recommendations, necessary to confirm the monitoring equipment is operational prior to the commencement of the required monitoring.
- ^d Emission units with post-control PTE ≥ 100 percent of the amount classifying the source as a major source (i.e., Large PSEU) must collect four or more values per hour to be averaged. A reduced data collection frequency may be approved in limited circumstances. Other emission units must collect data at least once per 24 hour period.

RATIONALE AND JUSTIFICATION	
<p>Complete this section for <u>EACH</u> PSEU that needs to be addressed in this CAM plan submittal. This section may be copied as needed for each PSEU. This section is to be used to provide rationale and justification for the selection of <u>EACH</u> indicator and monitoring approach and <u>EACH</u> indicator range in order to meet the submittal requirements specified in 40 CFR §64.4.</p>	
<p>6a) PSEU Designation: Thermal Oxidizer 3C</p>	<p>6b) Regulated Air Pollutant: VOC</p>
<p>7) <u>INDICATORS AND THE MONITORING APPROACH</u>: Provide the rationale and justification for the selection of the indicators and the monitoring approach used to measure the indicators. Also provide any data supporting the rationale and justification. Explain the reasons for any differences between the verification of operational status or the quality assurance and control practices proposed, and the manufacturer's recommendations. (If additional space is needed, attach and label accordingly with the appropriate PSEU designation and pollutant):</p> <p>The incinerator chamber temperature of 1275° F was selected because it is indicative of the thermal incinerator operations (combustion occurring within the chamber) and is listed as the minimum combustion chamber temperature in 5.1.3 of the permit. This temperature was verified by the control efficiency tests performed on February 27, 2014. During these tests, three one hour tests in accordance with Method 1 measured the velocities at the inlet, outlet, and wicket preheat. The VOC concentrations at the inlet ducts and outlet stacks were determined with Method 25A. This approach utilized Flame Ionization Analyzers simultaneously measuring inlet and outlet VOC concentrations.</p> <p>The operating lines operate at a set point temperature of 1350° F, 75° F higher than the mandated minimum sheet feed temperature. The lines will not be able to process sheets if it does not meet the set point temperature of 1350° F. If the chamber temperature decreases significantly, complete combustion may not occur. It has been shown that the control efficiency achieved by a thermal incinerator is a function of its operating temperature, or outlet temperature. By maintaining the operating temperature at or above a minimum, a level of control efficiency is expected to be achieved.</p> <p>In addition to operating the chamber at a higher temperature, additional work practices are performed on the equipment to ensure proper burn and operation. The burner cone, combustion chamber area, and the face plate of the heat exchanger tubes are inspected twice per year. The temperature gauge is calibrated annually to ensure it is operating at proper temperatures.</p>	
<p>8) <u>INDICATOR RANGES</u>: Provide the rationale and justification for the selection of the indicator ranges. The rationale and justification shall indicate how <u>EACH</u> indicator range was selected by either a <u>COMPLIANCE OR PERFORMANCE TEST</u>, a <u>TEST PLAN AND SCHEDULE</u>, or by <u>ENGINEERING ASSESSMENTS</u>. Depending on which method is being used for each indicator range, include the specific information required below for that specific indicator range. (If additional space is needed, attach and label accordingly with the appropriate PSEU designation and pollutant):</p> <ul style="list-style-type: none"> • <u>COMPLIANCE OR PERFORMANCE TEST</u> (Indicator ranges determined from control device operating parameter data obtained during a compliance or performance test conducted under regulatory specified conditions or under conditions representative of maximum potential emissions under anticipated operating conditions. Such data may be supplemented by engineering assessments and manufacturer's recommendations). The rationale and justification shall <u>INCLUDE</u> a summary of the compliance or performance test results that were used to determine the indicator range, and documentation indicating that no changes have taken place that could result in a significant change in the control system performance or the selected indicator ranges since the compliance or performance test was conducted. • <u>TEST PLAN AND SCHEDULE</u> (Indicator ranges will be determined from a proposed implementation plan and schedule for installing, testing, and performing any other appropriate activities prior to use of the monitoring). The rationale and justification shall <u>INCLUDE</u> the proposed implementation plan and schedule that will provide for use of the monitoring as expeditiously as practicable after approval of this CAM plan, except that in no case shall the schedule for completing installation and beginning operation of the monitoring exceed 180 days after approval. 	

- ENGINEERING ASSESSMENTS (Indicator Ranges or the procedures for establishing indicator ranges are determined from engineering assessments and other data, such as manufacturers' design criteria and historical monitoring data, because factors specific to the type of monitoring, control device, or PSEU make compliance or performance testing unnecessary). The rationale and justification shall INCLUDE documentation demonstrating that compliance testing is not required to establish the indicator range.

RATIONALE AND JUSTIFICATION:

The selected indicator range for the incinerator combustion chamber temperature is 1275°F during a 3-hour block period. Permit Condition 5.2.5 of R30-00900012-2012 (MM01) specifies that the minimum combustion chamber temperature for 3C shall be 1275°F. At this temperature it is expected to achieve a 99% or greater destruction efficiency as required by Permit Condition 4.1.6. The incinerator employs a temperature controller that maintains the desired temperature by using a natural-gas fired auxiliary burner. The temperature controller is set to maintain a temperature at 1350°F to ensure destruction efficiency is maintained. The sheet feed will shut down if the temperature of the combustion chamber reaches 1300°F. Historical monitoring data shows that the incinerator can be maintained at this temperature on a routine basis with only very brief excursions.

The performance test was conducted in February 27, 2014 using EPA Method 25 to test the destruction and control efficiency of the three recuperative thermal oxidizer at Ardagh.. Over three test, thermal oxidizer, 3C, had an average destruction efficiency of 99.8%. A copy of the test report was sent to the Division of Air Quality upon completion. These tests confirm acceptable performance of the incinerator and an average control efficiency was achieved over the three runs.

The definition of excursion is established based on the results of the most recent stack test for a period in excess of the 3-hour block period. The average 3-hour block period is an operating limit referenced in Table 4 of 40 C.F.R.63 Subpart KKKK. The facility is not subpart to this subpart because they operate as a synthetic minor source under 40 C.F.R. Part 63 Subpart KKKK (See Section 3.7 of R30-00900012-2012, Permit Shield); however, this is considered a standard industry operating limit.

Monitoring frequency, data collection, and averaging period consistent with the characteristics and typical variability of the emissions unit and commensurate with the time period over which an exceedance or excursion is likely to occur. The analyzer will measure the temperature at 1 minute intervals, and the average value for each 15-minute period will be recorded. The 15-minute values for each clock-hour will be averaged to provide a 1-hour temperature reading to assess compliance with the indicator range. This averaging approach is consistent with 40 C.F.R. 60.13 Monitoring Requirements for CEMs and with the averaging periods outlined in the EPA's CAM Technical Guidance Document. This method of monitoring is also consistent with compliance stack testing performed methods performed at the facility.

Appendix B
Permit Shield Applicability Summary

**West Virginia Title V Applicability Review
For Permit Shield
Ardagh Metal Packaging USA, Inc.**

Citation	Description	Applicable		Explanation
		Yes	No	
45CSR2	To prevent and control particulate air pollution from combustion of fuel in indirect heat exchangers		X	Facility does not have indirect heat exchangers.
45CSR2A	Testing, monitoring, recordkeeping and reporting requirements under 45CSR2		X	Facility is not subject to 45CSR2.
45CSR3	To prevent and control air pollution from the operation of hot mix asphalt plants		X	Facility does not operate hot mix asphalt plants.
45CSR4	To prevent and control the discharge of air pollutants into the open air which causes or contributes to an objectionable odor or odors	X		Permit Section - 3.4.3 General requirement. Must maintain a record of all odor complaints, investigations in response to complaints, and any responsive action(s).
45CSR5	To prevent and control the discharge of air pollutants from the operation of coal preparation plants, coal handling operations and coal refuse disposal areas		X	Facility does not operate a coal facility.
45CSR6	To prevent and control air pollution from combustion of refuse	X		Permit Section –5.0 Facility has various limitations and standards, monitoring, testing, record keeping, and reporting requirements to prevent and control air pollution.
45CSR7	To prevent and control PM air pollution from manufacturing processes and associated operations	X		Requirement for fuel-burning sources. Facility operates three thermal oxidizers. Ardagh only uses natural gas so PM opacity compliance is easily met.
45CSR7A	Compliance test procedures for 45CSR7 – to prevent and control particulate air pollution from manufacturing process operations		X	Procedures are required to be used when demonstrating compliance with the requirements.
45CSR8	Ambient air quality standards for SO2 and PM		X	
45CSR10	To prevent and control air pollution from the emission of SO2	X		Requirement for fuel-burning sources. Facility operates three thermal oxidizers. Ardagh only uses natural gas so SO2 compliance is easily met.
45CSR10A	Testing, monitoring, recordkeeping and reporting requirements under 45CSR10		X	Must meet requirements as provided in 45CSR10.
45CSR11	Prevention of air pollution emergency episodes	X		Permit Section – 3.1.5 General requirement that can be instituted by WV DEP is required.
45CSR13	Permits for construction, modification, relocation and operation of stationary sources of air pollutants, notification requirements, administrative updates, temporary permits,	X		Permit Section – 3.1.9 Facility is subject to this requirement for the installation of new stationary equipment. Permit sets requirements for limitations and standards, testing, and record keeping. The facility has 45CSR13 permits for some equipment on-site.

**West Virginia Title V Applicability Review
For Permit Shield
Ardagh Metal Packaging USA, Inc.**

Citation	Description	Applicable		Explanation
		Yes	No	
	general permits, and procedures for evaluation			
45CSR13A	The permitting of research and development (R&D) activities under 45CSR13		X	Facility does not have R&D facilities.
45CSR13B	The permitting of laboratory facilities under 45CSR13		X	Facility does have laboratory on-site to complete various test on the metal.
45CSR14	Permits for construction and major modification of major stationary sources of air pollution for the prevention of significant deterioration (PSD)	X		Permit Section 1.0 - Facility is a major source for purposes of PSD.
45CSR16	Standards for performance new stationary sources pursuant to 40CFR Part 60		X	Permit Section – 3.7 Facility is not subject to any 40CFR Part 60 requirements. Permit shield exempts facility because it cuts the metal coils prior to coating making it not applicable to 40 CFR Part 60 Subpart TT. See attached document for individual applicability
45CSR17	To prevent and control PM air pollution from materials handling, preparation, storage and other sources of fugitive PM		X	The facility does manage fugitive PM.
45CSR18	To prevent and control emissions from commercial and industrial solid waste incineration (CISWI) units		X	Facility does not operate a CISWI.
45CSR19	Requirements for pre-construction review, determination of emission offsets for proposed new or modified stationary sources of air pollutants and emission trading for intrasource pollutants	X		Permit Section 1.0 - Facility is located in an attainment area.
45CSR20	Good engineering practice (GEP) as applicable to stack heights		X	Facility complies with all GEP requirements.
45CSR21	Regulation to prevent and control air pollution from the emission of VOCs		X	Facility is not located in an applicable county.
45CSR22	Air quality management fee program		X	Facility is subject as required during permitting exercises.
45CSR23	To prevent and control emissions from municipal solid waste landfills		X	Facility does not operate a municipal solid waste landfill.
45CSR25	To prevent and control air pollution from hazardous waste treatment, storage, or disposal facilities (TSDF)		X	Facility does not operate a TSDF.

West Virginia Title V Applicability Review
For Permit Shield
Ardagh Metal Packaging USA, Inc.

Citation	Description	Applicable		Explanation
		Yes	No	
45CSR27	To prevent and control emissions of toxic air pollutants		X	Facility does not emit these toxic pollutants and is not subject to the requirements.
45CSR28	Air pollutant emissions banking and trading		X	Facility has banked emissions from the removal of equipment.
45CSR29	Rule requiring the submission of emission statements for VOC emissions and NOx emissions		X	Facility is not located in an applicable county.
45CSR30	Requirements for operating permits	X		Permit Section – 2.0 This is part of a renewal application for the facility Title V permit and must adhere to permit expiration, renewal, conditions, changes and modification requirements
45CSR30A	Deferral of non-major and area sources from permitting requirements		X	Facility is a major source for Title V permitting.
45CSR30B	Identification and counting of fugitive emissions in major source determinations under WV 45CSR30		X	Requirement does not apply. Facility is a major source.
45CSR31	Confidential information		X	Facility will not request confidential information.
45CSR31A	Release of previously submitted confidential information		X	Facility is not requesting a release of any previously submitted information.
45CSR31B	Confidential business information and emission data		X	Facility will request confidential information.
45CSR32	Serious and minor violations of applicable rules	X		Applicable as a general requirement. The facility presently has no consent decrees related to rule violations.
45CSR33	Acid rain provisions and permits		X	Facility does not have an acid rain permit and is not subject to the requirements.
45CSR34	Emission standards for HAPs for source categories pursuant to 40CFR Part 63		X	Permit Section 3.7 Facility is not applicable to NESHAP's under 40CFR Part 63 Subpart KKKK because it is reducing their HAP emission limitations by modifying their current use of coatings, cleaners, pastes, and thinners to become a synthetic minor source.
45CSR35	Requirements for determining conformity of general federal actions to applicable air quality implementation plans (General Conformity)		X	General requirement.
45CSR36	Requirements for determining conformity of transportation plans, programs, and projects developed, funded or approved under Title 23 U.S.C. or the federal transit act, to applicable air quality		X	General requirement.

**West Virginia Title V Applicability Review
For Permit Shield
Ardagh Metal Packaging USA, Inc.**

Citation	Description	Applicable		Explanation
		Yes	No	
	implementation plans (Transportation Conformity)			
45CSR38	Provisions for determination of compliance with air quality management rules		X	General requirement.
45CSR39	Control of annual NOx emissions to mitigate interstate transport of fine PM and NOx		X	Facility is not presently subject to the CAIR requirements.
45CSR40	Control of ozone season NOx emissions to mitigate interstate transport of ozone and NOx		X	Facility is not presently subject to the CAIR requirements.
45CSR41	Control of annual SO2 emissions to mitigate interstate transport of fine PM and SO2		X	Facility is not presently subject to the CAIR requirements.
45CSR42	Greenhouse Gas Emission Inventory Program		X	Facility is not presently subject to GHG Emissions Inventory Program.

**West Virginia Title V Applicability Review
For Permit Shield
Ardagh Metal Packaging USA, Inc.**

1. NEW SOURCE PERFORMANCE REGULATIONS – 45CSR16				
B. APPLICABILITY			TITLE SUBPART	ORGANIZATION (40 CFR PART 60 NEW SOURCE PERFORMANCE STANDARDS)
YES	NO	REASON		
	x		A	General Provisions
	x		B	Adoption and Submittal of State Plans for Designated Facilities
	x		C	Emission Guidelines and Compliance Times
	x		Ca	Emission Guidelines and Compliance Times for Municipal Waste Combustors
	x		Cb	Emission Guidelines and Compliance Times for Municipal Waste Combustors that are Constructed on or before 12/19/95
	x		Cc	Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills
	x		Cd	Emission Guidelines and Compliance Times for Sulfuric Acid Productions Units
	x		Ce	Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators
	x		D	Fossil-Fuel Fired Steam Generators (construction started after 8/17/71)
	x		Da	Electric Utility Steam Generating Units(construction started after 9/18/78)
	x		Db	Industrial-Commercial-Institutional Steam Generating Units
	x		Dc	Small Industrial-Commercial-Institutional Steam Generating Units
	x		E	Incinerators
	x		Ea	Municipal Waste Combustors Constructed Between 12-20-89 / 9-20-94
	x		Eb	Municipal Waste Combustors After 9-20-94
	x		Ec	Hospital/Medical/Infectious Waste Incinerators Constructed After 6-20-96
	x		F	Portland Cement Plants
	x		G	Nitric Acid Plants
	x		H	Sulfuric Acid Plants
	x		I	Asphalt / Concrete Plants
	x		J	Petroleum Refineries
	x		K	Storage vessels for Petroleum Liquids which construction, reconstruction or Modification started between (6/11/73 – 5/19/78)
	x		Ka	Storage Vessels for Petroleum Liquids 5/19/78 – 7/23/84
	x		Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) after 7/23/84
	x		L	Secondary Lead Smelters
	x		M	Secondary Brass and Bronze Production Plants
	x		N	Primary Emissions from Basic Oxygen Process Furnaces(construction after 6/11/73
	x		Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities (Construction started after1/20/83)
	x		O	Sewage Treatment Plants
	x		P	Primary Copper Smelters
	x		Q	Primary Zinc Smelters
	x		R	Primary Lead Smelters
	x		S	Primary Aluminum Reduction Plants
	x		T	Phosphate Fertilizer Industry; Wet-Process Phosphoric Acid Plants
	x		U	Phosphate Fertilizer Industry; Superphosphoric Acid Plants

**West Virginia Title V Applicability Review
For Permit Shield
Ardagh Metal Packaging USA, Inc.**

1. NEW SOURCE PERFORMANCE REGULATIONS – 45CSR16				
B. APPLICABILITY			TITLE SUBPART	ORGANIZATION (40 CFR PART 60 NEW SOURCE PERFORMANCE STANDARDS)
YES	NO	REASON		
	x		V	Phosphate Fertilizer Industry; Diammonium Phosphate Plants
	x		W	Phosphate Fertilizer Industry; Triple Superphosphate Plants
	x		X	Phosphate Fertilizer Industry; Granular Triple Superphosphate Storage Facilities
	x		Y	Coal Preparation Plants
	x		Z	Ferroalloy Production Facilities
	x		AA	Steel Plants Electric Arc Furnaces (Constructed from 11/21/74 to 8/17/83)
	x		AAa	Steel Plants Electric Arc Furnaces and Argon-oxygen Decarburization Vessels (Constructed after 8/7/83)
	x		BB	Kraft Pulp Mills
	x		CC	Glass Manufacturing Plants
	x		DD	Grain Elevators
	x		EE	Surface Coating of Metal Furniture
	x		FF	[Reserved]
	x		GG	Stationary Gas Turbines
	x		HH	Lime Manufacturing Plants
	x		KK	Lead-Acid Battery Manufacturing
	x		LL	Metallic Mineral Processing Plants
	x		MM	Automobile and Light-Duty Truck Surface Coating Operations
	x		NN	Phosphate Rock Plants
	x		PP	Ammonium Sulfate Manufacture
	x		QQ	Graphic Arts Industry; Publication Rotogravure Printing
	x		RR	Pressure Sensitive Tape and Label Surface Coating Operations
	x		SS	Industrial Surface Coating Large Appliances
	x	See Below*	TT	Metal Coil Surface Coating
	x		UU	Asphalt Processing and Asphalt Roofing Manufacture
	x		VV	Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry
	x		WW	Beverage Can Surface Coating Industry
	x		XX	Bulk Gasoline Terminals
	x		AAA	New Residential Wood Heaters
	x		BBB	Rubber Tire Manufacturing Industry
	x		CCC	[Reserved]
	x		DDD	Polymer Manufacturing Industry
	x		EEE	[Reserved]
	x		FFF	Flexible Vinyl and Urethane Coating and Printing
	x		GGG	Equipment Leaks of VOC in Petroleum Refineries
	x		HHH	Synthetic Fiber Production Facilities
	x		III	VOC Emissions from SOCM I Air Oxidation Unit Processes
	x		JJJ	Petroleum Dry Cleaners
	x		KKK	Equipment Leaks of VOC from Onshore Natural Gas Processing

**West Virginia Title V Applicability Review
For Permit Shield
Ardagh Metal Packaging USA, Inc.**

1. NEW SOURCE PERFORMANCE REGULATIONS – 45CSR16				
B. APPLICABILITY			TITLE SUBPART	ORGANIZATION (40 CFR PART 60 NEW SOURCE PERFORMANCE STANDARDS)
YES	NO	REASON		
	x		LLL	Onshore Natural Gas Processing-SO ₂ Emissions
	x		MMM	[Reserved]
	x		NNN	VOC Emissions from SOCM Distillation Operations
	x		OOO	Nonmetallic Mineral Processing Plants
	x		PPP	Wool Fiberglass Insulation Manufacturing Plants
	x		QQQ	VOC Emissions form Petroleum Refinery Wastewater Systems
	x		RRR	Synthetic Organic Chemical Manufacturing Reactor Processes
	x		SSS	Magnetic Tape Coating Facilities
	x		TTT	Industrial Surface Coating of Plastic Parts for Business Machines
	x		UUU	Calciners and Dryers in Mineral Industries
	x		VVV	Polymeric Coating of Supporting Substrates Facilities
	x		WWW	Landfills
	x		AAAA	Small Municipal Waste Combustion Units (started after 8/30/99, Modifications or Reconstruction after 6/6/01)
	x		CCCC	Commercial and Industrial Solid Waste Incineration Units for Which Construction is Commenced After November 30, 1999 or for which Modification or Reconstruction is Commenced on or After June 1, 2001
	x		DDDD	Emission Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units Constructed on or Before 11-30-99
	x		GGGG	[Reserved]
	x		HHHH	Emission Guidelines and Compliance Times for Coal-Fired Electric Steam Generating Units

* Standards of Performance for Metal Coil Surface Coating defines metal coil surface coating operation as the application system used to apply an organic coating to the surface of any continuous metal strip with thickness of 0.15 millimeter or more that is packaged in a roll or coil. "This facility cuts the metal coils prior to coating, and as such, is not applicable to Subpart TT.

**West Virginia Title V Applicability Review
For Permit Shield
Ardagh Metal Packaging USA, Inc.**

MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY REGULATIONS – 45CSR34				
APPLICABILITY			TITLE SUBPART	ORGANIZATION (40 CFR PART 63 NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES)
YES	NO	REASON		
	x		A	General Provisions
	x		B	Requirements for Control Technology Determinations for Major Sources in Accordance with Clean Air Act Sections, Sections 112(g) and 112(j)
	x		F	Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry
	x		G	Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater
	x		H	Organic Hazardous Air Pollutants for Equipment Leaks
	x		I	Organic Hazardous Air Pollutants for Certain Process Subject to the Negotiated Regulation for Equipment Leaks
	x		J	Polyvinyl Chloride Copolymers Production
	x		K	[Reserved]
	x		L	Coke Oven Batteries
	x		M	Perchloroethylene Air Emission for Dry Cleaning
	x		N	Chromium Emissions from Hard and Decorative Chromium Electroplating and from Chromium Anodizing Tanks
	x		O	Ethylene Oxide Emission for Sterilization Facilities
	x		P	[Reserved]
	x		Q	Hazardous Air Pollutants for Industrial Process Cooling Towers
	x		R	Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations)
	x		S	Hazardous Air Pollutants from the Pulp and Paper Industry
	x		T	Halogenated Solvent Cleaning
	x		U	Group I Polymers and Resins
	x		V	[Reserved]
	x		W	Epoxy Resins Production and Non-Nylon Polyamides Production
	x		X	Hazardous Air Pollutants from Secondary Lead Smelting
	x		Y	National Emission Standards for Marine Vessel Loading and Unloading Operations
	x		Z	[Reserved]
	x		AA	Hazardous Air Pollutants from Phosphoric Acid Manufacturing Plants
	x		BB	Hazardous Air Pollutants from Phosphate Fertilizer Production Plants
	x		CC	Hazardous Air Pollutants; Petroleum Refineries
	x		DD	Off-Site Waste and Recovery Operations
	x		EE	Magnetic Tape Manufacturing Operations
	x		FF	[Reserved]
	x		GG	Hazardous Air Pollutants for Source Categories: Aerospace Manufacturing and Rework Facilities
	x		HH	Hazardous Air Pollutants from Oil and Natural Gas Production Facilities
	x		II	Hazardous Air Pollutants for Shipbuilding & Ship Repair (Surface Coating) Operations
	x		JJ	Hazardous Air Pollutant Emissions from Wood Furniture Manufacturing
	x		KK	Printing and Publishing Industry
	x		LL	Hazardous Air Pollutants for Primary Aluminum Reduction Plants
	x		MM	Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills

**West Virginia Title V Applicability Review
For Permit Shield
Ardagh Metal Packaging USA, Inc.**

MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY REGULATIONS – 45CSR34				
APPLICABILITY			TITLE SUBPART	ORGANIZATION (40 CFR PART 63 NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES)
YES	NO	REASON		
	x		OO	Tanks—Level 1
	x		PP	Containers
	x		QQ	Surface Impoundments
	x		RR	Individual Drain Systems
	x		SS	Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process
	x		TT	Equipment Leaks—Control Level 1
	x		UU	Equipment Leaks—Control Level 2 Standards
	x		VV	Oil Water Separators and Organic-Water Separators
	x		WW	Storage Vessels (tanks)—Control Level 2
	x		XX	Ethylene Manufacturing Process Units: Heat Exchange Systems and Waste Operations
	x		YY	Hazardous Air Pollutants for Source Categories: Generic Maximum Available Control Technology Standards
	x		ZZ	[Reserved]
	x		AAA	[Reserved]
	x		BBB	[Reserved]
	x		CCC	Steel Pickling HCl Process Facilities and Hydrochloric Acid Regeneration Plants
	x		DDD	Hazardous Air Pollutants for Mineral Wool Production
	x		EEE	Hazardous Air Pollutants from Hazardous Waste Combustors
	x		FFF	[Reserved]
	x		GGG	Pharmaceuticals Production
	x		HHH	Hazardous Air Pollutants from Natural Gas Transmission and Storage Facilities
	x		III	Hazardous Air Pollutants for Flexible Polyurethane Foam Production
	x		JJJ	Hazardous Air Pollutant Emissions: Group IV Polymers and Resins
	x		KKK	[Reserved]
	x		LLL	Hazardous Air Pollutants from the Portland Cement Manufacturing Industry
	x		MMM	Hazardous Air Pollutants for Pesticide Active Ingredient Production
	x		NNN	Hazardous Air Pollutants for Wool Fiberglass Manufacturing
	x		OOO	Manufacture of Amino/Phenolic Resins
	x		PPP	Hazardous Air Pollutant Emissions for Polyether Polyols Production
	x		QQQ	Primary Copper Smelting
	x		RRR	Secondary Aluminum Production
	x		SSS	[Reserved]
	x		TTT	Hazardous Air Pollutants for Primary Lead Smelting
	x		UUU	Petroleum Refineries:Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units
	x		VVV	Hazardous Air Pollutants: Publicly Owned Treatment Works
	x		WWW	[Reserved]
	x		XXX	Hazardous Air Pollutants for Ferroalloys Production: Ferromanganese and Silicomanganese
	x		AAAA	Municipal Solid Waste Landfills
	x		CCCC	Manufacturing of Nutritional Yeast
	x		DDDD	Plywood and Composite Wood Products

**West Virginia Title V Applicability Review
For Permit Shield
Ardagh Metal Packaging USA, Inc.**

MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY REGULATIONS – 45CSR34				
APPLICABILITY			TITLE SUBPART	ORGANIZATION (40 CFR PART 63 NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES)
YES	NO	REASON		
	x		EEEE	Organic Liquid Distribution (non-gasoline)
	x		FFFF	Miscellaneous Organic Chemical Manufacturing
	x		GGGG	Solvent Extraction for Vegetable Oil Production
	x		HHHH	Wet Formed Fiberglass Mat Production
	x		IIII	Automobile and Light Duty Truck Coating/Manufacturing
	x		JJJJ	Paper and Other Web Coating
	x	See Below*	KKKK	Surface Coating of Metal Cans
	x		MMMM	Surface Coating of Miscellaneous Metal Parts and Products
	x		NNNN	Surface Coating of Large Appliances
	x		OOOO	Printing, Coating and Dyeing of Fabrics and Other Textiles
	x		PPPP	Surface Coating of Plastic Parts
	x		QQQQ	Surface Coating of Wood Building Products
	x		RRRR	Surface Coating of Metal Furniture
	x		SSSS	Surface Coating of Metal Coil
	x		TTTT	Leather Finishing Operations
	x		UUUU	Cellulose Production Manufacturing
	x		VVVV	Boat Manufacturing
	x		WWWW	Reinforced Plastic Composites Production
	x		XXXX	Rubber Tire Manufacturing
	x		YYYY	Combustion Turbines
	x		ZZZZ	Reciprocating Internal Combustion Engines (RICE)
	x		AAAAA	Lime Manufacturing
	x		BBBBB	Semiconductor Manufacturing
	x		CCCCC	Coke Ovens: Pushing, Quenching and Battery Stacks
	x		DDDDD	Industrial, Commercial and Institutional Boilers and Process Heaters
	x		EEEEE	Iron Foundries
	x		FFFFF	Integrated Iron and Steel Manufacturing
	x		GGGGG	Site Remediation
	x		HHHHH	Miscellaneous Coating Manufacturing (MON)
	x		IIIII	Mercury Emissions from Mercury Cell Chlor-Alkali Plants
	x		JJJJJ	Brick and Structural Clay Products Manufacturing
	x		KKKKK	Clay Ceramics Manufacturing
	x		LLLLL	Asphalt Roofing and Processing
	x		MMMMM	Flexible Polyurethane Foam Fabrication Operations
	x		NNNNN	Hydrochloric Acid Production
	x		PPPPP	Engine Test Cells/Stands
	x		QQQQQ	Friction Parts Manufacturing
	x		RRRRR	Taconite Iron Ore Processing
	x		SSSSS	Refractory Products Manufacturing
	x		TTTTT	Primary Magnesium Refining

**West Virginia Title V Applicability Review
For Permit Shield
Ardagh Metal Packaging USA, Inc.**

EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS – 45CSR15				
C. APPLICABILITY			TITLE SUBPART	ORGANIZATION (40 CFR PART 61 NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS)
YES	NO	REASON		
	x		A	General Provisions
	x		B	Radon Emissions from Underground Uranium Mines
	x		C	Beryllium
	x		D	Beryllium Rocket Motor Firing
	x		E	Mercury
	x		F	Vinyl Chloride
	x		G	[Reserved]
	x		H	Emissions of Radionuclides Other Than Radon From Department of Energy Facilities
	x		I	Radionuclides Emissions from Federal Facilities Other Than Nuclear Regulatory Commission Licensees and Not Covered by Subpart H
	x		J	Equipment Leaks (Fugitive Emission Sources) of Benzene
	x		K	Radionuclide Emission from Elemental Phosphorous Plants
	x		L	Benzene Emissions from Coke By-Products Recovery Plants
	x		M	Asbestos
	x		N	Inorganic Arsenic Emissions from Glass Manufacturing Plants
	x		O	Inorganic Arsenic Emissions from Primary Copper Smelters
	x		P	Inorganic Arsenic Emissions from Arsenic Trioxide and Metallic Arsenic Production Facilities
	x		Q	Radon Emissions from Department of Energy Facilities
	x		R	Radon Emissions from Phosphogypsum
	x		S	[Reserved]
	x		T	Radon Emissions from the Disposal of Uranium Mill Tailings
	x		U	[Reserved]
	x		V	Equipment Leaks (Fugitive Emission Sources)
	x		W	Radon Emissions from Operating Mill Tailings
	x		X	[Reserved]
	x		Y	Benzene Emissions from Benzene Storage Vessels
	x		Z	[Reserved]
	x		AA	[Reserved]
	x		BB	Benzene Emissions from Benzene Transfer Operations
	x		CC	[Reserved]
	x		DD	[Reserved]
	x		EE	[Reserved]
	x		FF	Benzene Waste Operations

* National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Cans - The Ardagh USA's Weirton Plant is reducing their HAP emission limitations (per permit R13-2410B) by modifying their current use of coatings, cleaners, pastes and thinners to become a synthetic minor source under this subpart.

Appendix C

Emissions Calculations

Ardagh Metal Packaging USA, Inc.
Weirton, WV
Title V Permit Renewal Application
R30-00900012-2012
Requested Potential To Emit

Facility Total Emissions - Requested Emissions Limits												
Source	VOC		HAP		PM/PM10		CO		SO2		NOx	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
Line 1	14.83	80.9	NA	< 25 TPY Combined and <10 TPY Individual HAPs Facility Wide	NA	NA	NA	NA	NA	NA	NA	NA
Line 2	14.84		NA		NA	NA	NA	NA	NA	NA	NA	NA
Line 3	6.1		NA		NA	NA	NA	NA	NA	NA	NA	NA
Line 4	3.05		NA		NA	NA	NA	NA	NA	NA	NA	NA
Cleaning	279.53	58.2	NA		NA	NA	NA	NA	NA	NA	NA	NA
C1	0.08	0.36	NA		0.11	0.5	1.26	5.52	0.01	0.04	1.5	6.57
C2	0.03	0.14	NA		0.05	0.2	0.5	2.21	0.01	0.02	0.3	1.31
C3	0.03	0.14	NA		0.05	0.2	0.5	2.21	0.01	0.02	0.3	1.31
Printer	1.03	2.58	NA		NA	NA	NA	NA	NA	NA	NA	NA
Tanks	NA	0.34	NA		NA	NA	NA	NA	NA	NA	NA	NA
Totals	319.52	142.66	NA	<25	0.21	0.90	2.26	9.94	0.03	0.08	2.10	9.19

Facility Total Emissions - Controlled (Based on current product usage) ⁽¹⁾												
Source	VOC		HAP		PM/PM10		CO		SO2		NOx	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
Line 1	14.6	76.09	5.12	7.81	NA	NA	NA	NA	NA	NA	NA	NA
Line 2	14.6		5.12		NA	NA	NA	NA	NA	NA	NA	NA
Line 3	6.00		2.10		NA	NA	NA	NA	NA	NA	NA	NA
Line 4	3		1.05		NA	NA	NA	NA	NA	NA	NA	NA
Cleaning	165.53	49.17	56.18	15.76	NA	NA	NA	NA	NA	NA	NA	NA
C1	0.08	0.36	0.0301	0.1304	0.11	0.50	1.26	5.52	0.010	0.04	1.50	6.57
C2	0.03	0.14	0.02004	0.05015	0.05	0.20	0.50	2.21	0.004	0.020	0.30	1.31
C3	0.03	0.14	0.02004	0.05015	0.05	0.20	0.50	2.21	0.004	0.020	0.30	1.31
Printer	1.03	2.58	0.18	0.44	NA	NA	NA	NA	NA	NA	NA	NA
Tanks	NA	0.34	NA	0.15	NA	NA	NA	NA	NA	NA	NA	NA
Totals	204.90	128.82	69.82	24.39	0.21	0.9	2.26	9.94	0.02	0.08	2.1	9.19

(1) The PTE is a snapshot of the various coatings that the facility currently uses or anticipates using in the future based on customer request. The types and amounts of coating can vary throughout the year, which is why the facility would like to continue to keep the same VOC limitations as in the current operating permit. Additionally, the permit requests to keep individual HAP limit of 10 ton/yr and total HAP limit of 25 ton/yr, speciated HAP PTE is provided on the Annual Coating Emissions.

Facility Total Emissions - Uncontrolled (Based on current product usage)												
Source	VOC		HAP		PM/PM10		CO		SO2		NOx	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
Line 1	292.01	1,521.77	102.35	157.47	NA	NA	NA	NA	NA	NA	NA	NA
Line 2	251.34		41.37		NA	NA	NA	NA	NA	NA	NA	NA
Line 3	258.23		42.51		NA	NA	NA	NA	NA	NA	NA	NA
Line 4	258.23		42.51		NA	NA	NA	NA	NA	NA	NA	NA
Cleaning	165.53	49.17	56.18	15.76	NA	NA	NA	NA	NA	NA	NA	NA
C1	0.08	0.36	0.0301	0.1304	0.11	0.50	1.26	5.52	0.01	0.04	1.50	6.57
C2	0.03	0.14	0.0200	0.0502	0.05	0.20	0.50	2.21	0.00	0.02	0.30	1.31
C3	0.03	0.14	0.0200	0.0502	0.05	0.20	0.50	2.21	0.00	0.02	0.30	1.31
Printer	1.03	2.58	0.18	0.44	NA	NA	NA	NA	NA	NA	NA	NA
Tanks	NA	0.34	NA	0.15	NA	NA	NA	NA	NA	NA	NA	NA
Totals	1,226.51	1,574.50	285.17	174.05	0.21	0.9	2.26	9.94	0.02	0.08	2.1	9.19

Ardagh Metal Packaging USA, Inc.
Weirton, WV
Title V Permit Renewal Application
R30-00900012-2012
Annual VOC and HAP Emissions

Purpose: To determine the annual emissions limits for Coating Lines 1 through 4 and cleaning operations by evaluating emissions from individual coatings. The emissions are based on the maximum annual usage which and minimum required control efficiency.

Emission Unit ID: 1S, 2S, 17S, 18S and 32S

Unit Description: Coater Oven Lines #1 through #4 and Cleaning

[illegible]

Blue Font = Product introduced since previous Title V Permit Modification. SDS included in Appendix D. These products may not be included in usage rate table in Section 4.1.7 of the R30-00900012-2012 (MM01)

Ardagh Metal Packaging USA, Inc.
Weirton, WV
Title V Permit Renewal Application
R30-00900012-2012

Emission Unit ID: 1S
Emission Point ID: 4E, 5E, 6E, 7E
Unit Description: Wagner Coater Oven Line #1 (Line #1)
Control Device: 1C

Purpose: To determine the hourly emissions limits for Coating Line 1 by evaluating emissions from individual coatings. The emissions are based on the maximum operations of the line which includes the maximum production, maximum application rate for the coating, and required control efficiencies. The coating that results in the highest VOC and/or HAP emissions was used to set the requested emissions limit. Emissions limits were compared to the Permit R13-1042D.

Calculations

Coating Line Permitted Rates of Operation and Emissions

Design Capacity: 7300 sheet/hr

Uncontrolled: 0.00%
Capture Efficiency: 100.00%
Control Efficiency: 95.00%
Reference: Permit R13-1042D

VOC Emission Limits
Limit based on VOC emissions from 20567WE (worst case)

VOC Hourly Emission Limits (lb/hr)			
	Uncaptured	Controlled	Total
Current Limit			
lb/hr	0	14.83	14.83
PTE			
lb/hr	Uncaptured 0.00	Controlled 14.60	Total 14.6
Change =	0.00	-0.23	-0.23
Requested Limit	0	14.83	14.83

HAPS Emission Limits
Limit based on HAP emissions from Coating 9372-046 (worst case)

HAPs Hourly Emission Limits (lb/hr)			
	Uncaptured	Controlled	Total
2006 Renewal			
PTE lb/hr	0.00	6.60	6.6
PTE			
lb/hr	Uncaptured 0.00	Controlled 5.12	Total 5.12
Change =	0.00	-1.48	-1.48
lbs/hr	0	6.60	6.6

Estimated Hourly Emissions from Usage of Coatings

								Hourly Emissions (lb/hr)									
								Generated 100%		Fugitive 0%		Captured 100%		Controlled 95.0%		Total Release (Fugitive+ Controlled)	
Product Name	Gallons per Sheet	Gallons per Hour	Unit Weight lb/gal	VOC (lb/gal)	HAP (% W)		(lb/gal)	VOC	HAP	VOC	HAP	VOC	HAP	VOC	HAP	VOC	HAP
9851-577 (Thinned with Glycol Ether EB 1:5)																	
9851-577	0.003584	26.1632	8.10	5.10	7.2	0.58		133.43	15.17	0.00	0	133.43	15.17	6.67	0.76	6.67	0.76
Glycol Ether EB	0.0007168	5.23264	7.53	7.53	0	0		39.40	0	0.00	0	39.40	0	1.97	0	1.97	0.00
							Total=	172.83	15.17	0.00	0.00	172.83	15.17	8.64	0.76	8.64	0.76
20S82AA (Thinned with Aromatic 100 1:9)																	
20S82AA	0.002532	18.4836	8.10	6.20	7.1	0.58		114.60	10.72	0.00	0	114.60	10.72	5.73	0.54	5.73	0.54
Aromatic 100	0.000281333	2.053733333	7.29	7.29	3.3	0.24		14.97	0.49	0.00	0	14.97	0.49	0.75	0.02	0.75	0.02
							Total=	129.57	11.21	0.00	0.00	129.57	11.21	6.48	0.56	6.48	0.56
20567WE thinned with SC2021 1:9																	
20567WE	0.00626	45.698	8.35	5.50	10.2	0.85		251.34	38.84	0.00	0	251.34	38.84	12.57	1.94	12.57	1.94
SC2021	0.000695556	5.077555556	8.01	8.01	0	0		40.67	0	0.00	0	40.67	0	2.03	0	2.03	0.00
							Total=	292.01	38.84	0.00	0.00	292.01	38.84	14.60	1.94	14.60	1.94
6256054 thinned with Glycol Ether EB at 1:5																	
6256054	0.0049325	36.00725	8.04	5.30	20.2	1.62		190.84	58.33	0.00	0	190.84	58.33	9.54	2.92	9.54	2.92
Glycol Ether EB	0.0009865	7.20145	7.53	7.53	0	0		54.23	0	0.00	0	54.23	0	2.71	0	2.71	0.00
							Total=	245.07	58.33	0.00	0.00	245.07	58.33	12.25	2.92	12.25	2.92
657 HE 1293 Not Thinned																	
657 HE 1293	0.003428	25.0244	7.99	5.39	15.79	1.26		134.88	31.53	0.00	0	134.88	31.53	6.74	1.58	6.74	1.58
657 HE 13501 Not Thinned																	
657 HE 13501	0.007329	53.5017	8.67	4.80	4	0.35		256.81	18.73	0.00	0	256.81	18.73	12.84	0.94	12.84	0.94
5698014 thinned with Mineral Spirits 1:10																	
5698014	0.003789	27.6597	7.55	3.30	0.4	0.03		91.28	0.83	0.00	0	91.28	0.83	4.56	0.04	4.56	0.04
Mineral Spirits 66/3	0.0003789	2.76597	6.50	6.50	0	0		17.97	0	0.00	0	17.97	0	0.90	0	0.90	0
							Total=	109.25	0.83	0.00	0.00	109.25	0.83	5.46	0.04	5.46	0.04
96X069A (Thinned with 16.6% Glycol Ether EB)																	
96X069A	0.003463602	25.2842946	9.18	3.50	4	0.37		88.50	9.36	0.00	0	88.50	9.36	4.43	0.47	4.43	0.47
Glycol Ether EB	0.000689398	5.0326054	7.53	7.53	36	2.71		37.90	13.64	0.00	0	37.90	13.64	1.90	0.68	1.90	0.68
							Total=	126.40	23.00	0.00	0.00	126.40	23.00	6.33	1.15	6.33	1.15
9851579 (Thinned with Glycol Ether EB 1:5)																	
9851579	0.003905	28.5065	8.16	5.20	3.7	0.3		148.23	8.55	0.00	0	148.23	8.55	7.41	0.43	7.41	0.43
Glycol Ether EB	0.000781	5.7013	7.53	7.53	0	0		42.93	0	0.00	0	42.93	0	2.15	0	2.15	0.00
							Total=	191.16	8.55	0.00	0.00	191.16	8.55	9.56	0.43	9.56	0.43
6256086 (Thinned with Glycol Ether EB 1:5)																	
6256086	0.003738	27.2874	7.95	5.20	6.9	0.55		141.89	15.01	0.00	0	141.89	15.01	7.09	0.75	7.09	0.75
Glycol Ether EB	0.0007476	5.45748	7.53	7.53	0	0		41.10	0	0.00	0	41.10	0	2.06	0	2.06	0.00
							Total=	182.99	15.01	0.00	0.00	182.99	15.01	9.15	0.75	9.15	0.75
4001S13V (Thinned with Glycol Ether EB 1:5)																	
4001S13V	0.004423	32.2879	9.74	4.80	7.6	0.74		154.98	23.89	0.00	0	154.98	23.89	7.75	1.19	7.75	1.19
Glycol Ether EB	0.0008846	6.45758	7.53	7.53	0	0		48.63	0	0.00	0	48.63	0	2.43	0	2.43	0.00
							Total=	203.61	23.89	0.00	0.00	203.61	23.89	10.18	1.19	10.18	1.19
20578AD (Thinned with Aromatic 100 1:9)																	
20578AD	0.0028	20.3149341	8.6000	5.0000	19.1000	1.64		101.57	33.32	0.00	0	101.57	33.32	5.08	1.67	5.08	1.67

Purpose: To determine the hourly emissions limits for Coating Line 1 by evaluating emissions from individual coatings. The emissions are based on the maximum operations of the line which includes the maximum production, maximum application rate for the coating, and required control efficiencies. The coating that results in the highest VOC and/or HAP emissions was used to set the requested emissions limit. Emissions limits were compared to the Permit R13-1042D.

Calculations

Coating Line Permitted Rates of Operation and Emissions

Design Capacity: 7300 sheet/hr

Uncontrolled: 0.00%
 Capture Efficiency: 100.00%
 Control Efficiency: 95.00%
 Reference: Permit R13-1042D

VOC Emission Limits

Limit based on VOC emissions from 20S67WE (worst case)

VOC Hourly Emission Limits (lb/hr)			
	Uncaptured	Controlled	Total
Current Limit			
lb/hr	0	14.83	14.83
PTE			
lb/hr	Uncaptured	Controlled	Total
	0.00	14.60	14.6
Change =	0.00	-0.23	-0.23
Requested Limit	0	14.83	14.83

HAPS Emission Limits

Limit based on HAP emissions from Coating 9372-046 (worst case)

HAPs Hourly Emission Limits (lb/hr)			
	Uncaptured	Controlled	Total
2006 Renewal			
PTE lb/hr	0.00	6.60	6.6
PTE			
lb/hr	Uncaptured	Controlled	Total
	0.00	5.12	5.12
Change =	0.00	-1.48	-1.48
lbs/hr	0	6.60	6.6

Estimated Hourly Emissions from Usage of Coatings

Product Name	Gallons per Sheet	Gallons per Hour	Unit Weight lb/gal	VOC (lb/gal)	HAP (% W)	HAP (lb/gal)	Hourly Emissions (lb/hr)								Total Release (Fugitive+ Controlled)	
							Generated 100%		Fugitive 0%		Captured 100%		Controlled 95.0%		Total Release	
							VOC	HAP	VOC	HAP	VOC	HAP	VOC	HAP	VOC	HAP
Aromatic 100		0.000309208	2.2572149	7.29	3.3	0.24	16.46	0.54	0.00	0	16.46	0.54	0.82	0.03	0.82	0.03
						Total=	118.03	33.86	0.00	0.00	118.03	33.86	5.90	1.7	5.90	1.70
26S96EJ (Thinned with PM Acetate 1:9)																
26S96EJ	0.0037	27.22989403	11.6100	4.2000	4.6000	0.53	114.37	14.43	0.00	0	114.37	14.43	5.72	0.72	5.72	0.72
PM Acetate	0.000414458	3.025543781	8.01	8.01	0	0	24.23	0	0.00	0	24.23	0	1.21	0	1.21	0.00
						Total=	138.60	14.43	0.00	0.00	138.60	14.43	6.93	0.72	6.93	0.72
26S06MBVR (Thinned with Glycol Ether EB 1:5)																
26S06MBVR	0.0053	38.4096514	8.7100	4.3000	9.6000	0.84	165.16	32.26	0.00	0	165.16	32.26	8.26	1.61	8.26	1.61
Glycol Ether EB	0.001052319	7.68193028	7.53	7.53	0	0	57.85	0	0.00	0	57.85	0	2.89	0	2.89	0.00
						Total=	223.01	32.26	0.00	0.00	223.01	32.26	11.15	1.61	11.15	1.61
31S46AH Thinned with SC2021 1:9																
31S46AH	0.0035	25.75079775	8.5700	5.1000	10.4000	0.89	131.33	22.92	0.00	0	131.33	22.92	6.57	1.15	6.57	1.15
SC2021	0.000391945	2.86119975	8.01	8.01	0	0	22.92	0	0.00	0	22.92	0	1.15	0	1.15	0.00
						Total=	154.25	22.92	0.00	0.00	154.25	22.92	7.72	1.15	7.72	1.15
4348807 (Thinned with 6.6% Glycol Ether EB)																
4348807	0.0038	27.90885463	8.0898	5.5000	2.0000	0.16	153.50	4.47	0.00	0	153.50	4.47	7.68	0.22	7.68	0.22
Glycol Ether EB	0.00022671	1.654983	7.53	7.53	0	0	12.46	0	0.00	0	12.46	0	0.62	0	0.62	0.00
						Total=	165.96	4.47	0.00	0.00	165.96	4.47	8.30	0.22	8.30	0.22
4348312 (Thinned with 6.6% Glycol Ether EB)																
4348312	0.0044	32.35341357	8.1000	5.5000	2.5000	0.2	177.94	6.47	0.00	0	177.94	6.47	8.90	0.32	8.90	0.32
Glycol Ether EB	0.00022671	1.654983	7.53	7.53	0	0	12.46	0	0.00	0	12.46	0	0.62	0	0.62	0.00
						Total=	190.40	6.47	0.00	0.00	190.40	6.47	9.52	0.32	9.52	0.32
9009947VR (Thinned with Glycol Ether EB 1:5)																
9009947VR	0.0056	40.56239522	8.4500	5.3000	12.1000	1.02	214.98	41.37	0.00	0	214.98	41.37	10.75	2.07	10.75	2.07
Glycol Ether EB	0.001111298	8.112479044	7.53	7.53	0	0	61.09	0	0.00	0	61.09	0	3.05	0	3.05	0.00
						Total=	276.07	41.37	0.00	0.00	276.07	41.37	13.80	2.07	13.80	2.07
31S09AC Thinned with SC2021 1:9																
31S09AC	0.0026	18.95267148	8.2200	4.4000	6.0000	0.49	83.39	9.29	0.00	0	83.39	9.29	4.17	0.46	4.17	0.46
SC2021	0.000288473	2.105852387	8.01	8.01	0	0	16.87	0	0.00	0	16.87	0	0.84	0	0.84	0.00
						Total=	100.26	9.29	0.00	0.00	100.26	9.29	5.01	0.46	5.01	0.46
9372-030 (Thinned with Glycol Ether EB 1:5)																
9372-030	0.0036	25.96575716	7.8900	5.3000	0.7000	0.06	137.62	1.56	0.00	0	137.62	1.56	6.88	0.08	6.88	0.08
Glycol Ether EB	0.000711391	5.193151432	7.53	7.53	0	0	39.11	0	0.00	0	39.11	0	1.96	0	1.96	0.00
						Total=	176.73	1.56	0.00	0.00	176.73	1.56	8.84	0.08	8.84	0.08
9372-046 (Thinned with Glycol Ether EB 1:5)																
9372-046	0.004123646	30.10261898	7.9300	5.3000	42.9000	3.4	159.54	102.35	0.00	0	159.54	102.35	7.98	5.12	7.98	5.12
Glycol Ether EB	0.000824729	6.020523795	7.53	7.53	0	0	45.34	0	0.00	0	45.34	0	2.27	0	2.27	0.00
						Total=	204.88	102.35	0.00	0.00	204.88	102.35	10.25	5.12	10.25	5.12
9851-615 Gold (Thinned with Glycol Ether EB 1:5)																
9851-615 Gold	0.0037	27.04046328	8.1900	5.0000	12.1000	0.99	135.20	26.77	0.00	0	135.20	26.77	6.76	1.34	6.76	1.34
Glycol Ether EB	0.000740835	5.408092656	7.53	7.53	0	0	40.72	0	0.00	0	40.72	0	2.04	0	2.04	0.00
						Total=	175.92	26.77	0.00	0.00	175.92	26.77	8.80	1.34	8.80	1.34
31S44ME Thinned with PM Acetate 1:9																
31S44ME	0.003439424	25.10779879	8.3500	5.0000	11.0000	0.92	125.54	23.1	0.00	0	125.54	23.1	6.28	1.16	6.28	1.16
PM Acetate	0.000382158	2.789755421	8.01	8.01	0	0	22.35	0	0.00	0	22.35	0	1.12	0	1.12	0.00
						Total=	147.89	23.10	0.00	0.00	147.89	23.10	7.40	1.16	7.40	1.16
V70S1AB Thinned with PM Acetate 1:9																
V70S1AB	0.003737	27.2801	8.1500	5.3000	32.5000	2.65	144.58	72.29	0.00	0	144.58	72.29	7.23	3.61	7.23	3.61
PM Acetate	0.000415222	3.031122222	8.01	8.01	0	0	24.28	0	0.00	0	24.28	0	1.21	0	1.21	0.00
						Total=	168.86	72.29	0.00	0.00	168.86	72.29	8.44	3.61	8.44	3.61
814030 Thinned with SC5256 1:10																

Purpose: To determine the hourly emissions limits for Coating Line 1 by evaluating emissions from individual coatings. The emissions are based on the maximum operations of the line which includes the maximum production, maximum application rate for the coating, and required control efficiencies. The coating that results in the highest VOC and/or HAP emissions was used to set the requested emissions limit. Emissions limits were compared to the Permit R13-1042D.

Calculations

Coating Line Permitted Rates of Operation and Emissions

Design Capacity: 7300 sheet/hr

Uncontrolled: 0.00%
Capture Efficiency: 100.00%
Control Efficiency: 95.00%
Reference: Permit R13-1042D

VOC Emission Limits

Limit based on VOC emissions from 20S67WE (worst case)

VOC Hourly Emission Limits (lb/hr)

		Uncaptured	Controlled	Total
Current Limit				
lb/hr		0	14.83	14.83
PTE				
	Uncaptured	Controlled	Total	
lb/hr	0.00	14.60	14.6	
Change =	0.00	-0.23	-0.23	
Requested Limit	0	14.83	14.83	

HAPS Emission Limits

Limit based on HAP emissions from Coating 9372-046 (worst case)

HAPs Hourly Emission Limits (lb/hr)

		Uncaptured	Controlled	Total
2006 Renewal				
PTE lb/hr		0.00	6.60	6.6
PTE				
	Uncaptured	Controlled	Total	
lb/hr	0.00	5.12	5.12	
Change =	0.00	-1.48	-1.48	
lbs/hr	0	6.60	6.6	

Estimated Hourly Emissions from Usage of Coatings

							Hourly Emissions (lb/hr)											
							Generated 100%		Fugitive 0%		Captured 100%		Controlled 95.0%		Total Release (Fugitive+ Controlled)			
Product Name	Gallons per Sheet	Gallons per Hour	Unit Weight lb/gal	VOC (lb/gal)	HAP (% W)	HAP (lb/gal)	VOC	HAP	VOC	HAP	VOC	HAP	VOC	HAP	VOC	HAP		
814030 Thinned with	0.002924	21.3452	8.1700	5.3922	0.0000	0	115.10	0	0.00	0	115.10	0	5.76	0	5.76	0.00		
SC5256	0.0002924	2.13452	7.5750	7.5750	10.0000	0.76	16.17	1.62	0.00	0	16.17	1.62	0.81	0.08	0.81	0.08		
						Total=	131.27	1.62	0.00	0.00	131.27	1.62	6.57	0.08	6.57	0.08		
816361 Thinned with SC1645 1:10																		
816361 Thinned with	0.0056	40.88	8.2800	4.5540	5.1000	0.42	186.17	17.17	0.00	0	186.17	17.17	9.31	0.86	9.31	0.86		
SC1645	0.00056	4.088	7.3500	7.3500	20.0000	1.47	30.05	6.01	0.00	0	30.05	6.01	1.50	0.3	1.50	0.30		
						Total=	216.22	23.18	0.00	0.00	216.22	23.18	10.81	1.16	10.81	1.16		
816610 Thinned with SC1645 1:10																		
816610 Thinned with	0.003813	27.8349	8.7600	3.8106	4.0000	0.35	106.07	9.74	0.00	0	106.07	9.74	5.30	0.49	5.30	0.49		
SC1645	0.0003813	2.78349	7.3500	7.3500	20.0000	1.47	20.46	4.09	0.00	0	20.46	4.09	1.02	0.2	1.02	0.20		
						Total=	126.53	13.83	0.00	0.00	126.53	13.83	6.32	0.69	6.32	0.69		
815547 Thinned with SC5256 1:10																		
815547 Thinned with	0.004356	31.7988	8.3500	4.9265	6.0000	0.5	156.66	15.9	0.00	0	156.66	15.9	7.83	0.8	7.83	0.80		
SC5256	0.0004356	3.17988	7.5750	7.5750	10.0000	0.76	24.09	2.42	0.00	0	24.09	2.42	1.20	0.12	1.20	0.12		
						Total=	180.75	18.32	0.00	0.00	180.75	18.32	9.03	0.92	9.03	0.92		

Note: Unit weight (lb/gal), VOC content (lb/gal), and HAP weight percent are provided by Coating Supplier.

Ardagh Metal Packaging USA, Inc.
Weirton, WV
Title V Permit Renewal Application
R30-00900012-2012

Emission Unit ID: 2S
Emission Point ID: 4E, 5E, 6E, 7E
Unit Description: FECO Coater Oven Line #2 (Line #2)
Control Device: 1C

Purpose: To determine the hourly emissions limits for Coating Line 2 by evaluating emissions from individual coatings. The emissions are based on the maximum operations of the line which includes the maximum production, maximum application rate for the coating, and required control efficiencies. The coating that results in the highest VOC and/or HAP emissions was used to set the requested emissions limit. Emissions limits were compared to the Permit R13-1042D.

Calculations

Coating Line Permitted Rates of Operation and Emissions
Design Capacity: 7300 sheet/hr

Uncontrolled: 0.00%
Capture Efficiency: 100.00%
Control Efficiency: 95.00%
Reference: Permit R13-1042D

VOC Emission Limits
Limit based on VOC emissions from 20567WE (worst case)

VOC Hourly Emission Limits (lb/hr)			
	Uncaptured	Controlled	Total
Current Limit lb/hr	0	14.83	14.83
PTE			
lb/hr	0.00	14.60	14.6
Change =	0.00	-0.23	-0.23
Requested Limit	0	14.83	14.83

HAPS Emission Limits
Limit based on HAP emissions from Coating 9372-046 (worst case)

HAPs Hourly Emission Limits (lb/hr)			
	Uncaptured	Controlled	Total
2006 Renewal			
PTE lb/hr	0.00	6.60	6.6
PTE			
lb/hr	0.00	5.12	5.12
Change =	0.00	-1.48	-1.48
lbs/hr	0	6.60	6.6

Estimated Hourly Emissions from Usage of Coatings

								Hourly Emissions (lb/hr)								Total Release (Fugitive+ Controlled)	
								Generated 100%		Fugitive 0%		Captured 100%		Controlled 95.0%		Total Release (Fugitive+ Controlled)	
Product Name	Gallons per Sheet	Gallons per Hour	Unit Weight lb/gal	VOC (lb/gal)	HAP (% W)		(lb/gal)	VOC	HAP	VOC	HAP	VOC	HAP	VOC	HAP	VOC	HAP
9851-577 (Thinned with Glycol Ether EB 1:5)																	
9851-577	0.003584	26.1632	8.10	5.10	7.2	0.58		133.43	15.17	0.00	0	133.43	15.17	6.67	0.76	6.67	0.76
Glycol Ether EB	0.0007168	5.23264	7.53	7.53	0	0		39.40	0	0.00	0	39.40	0	1.97	0	1.97	0.00
							Total=	172.83	15.17	0.00	0.00	172.83	15.17	8.64	0.76	8.64	0.76
20S82AA (Thinned with Aromatic 100 1:9)																	
20S82AA	0.002532	18.4836	8.10	6.20	7.1	0.58		114.60	10.72	0.00	0	114.60	10.72	5.73	0.54	5.73	0.54
Aromatic 100	0.000281333	2.053733333	7.29	7.29	3.3	0.24		14.97	0.49	0.00	0	14.97	0.49	0.75	0.02	0.75	0.02
							Total=	129.57	11.21	0.00	0.00	129.57	11.21	6.48	0.56	6.48	0.56
20S67WE thinned with SC2021 1:9																	
20S67WE	0.00626	45.698	8.35	5.50	10.2	0.85		251.34	38.84	0.00	0	251.34	38.84	12.57	1.94	12.57	1.94
SC2021	0.000695556	5.077555556	8.01	8.01	0	0		40.67	0	0.00	0	40.67	0	2.03	0	2.03	0.00
							Total=	292.01	38.84	0.00	0.00	292.01	38.84	14.60	1.94	14.60	1.94
62S6054 thinned with Glycol Ether EB at 1:5																	
62S6054	0.0049325	36.00725	8.04	5.30	20.2	1.62		190.84	58.33	0.00	0	190.84	58.33	9.54	2.92	9.54	2.92
Glycol Ether EB	0.0009865	7.20145	7.53	7.53	0	0		54.23	0	0.00	0	54.23	0	2.71	0	2.71	0.00
							Total=	245.07	58.33	0.00	0.00	245.07	58.33	12.25	2.92	12.25	2.92
657 HE 1293 Not Thinned																	
657 HE 1293	0.003428	25.0244	7.99	5.39	15.79	1.26		134.88	31.53	0.00	0	134.88	31.53	6.74	1.58	6.74	1.58
657 HE 13501 Not Thinned																	
657 HE 13501	0.007329	53.5017	8.67	4.80	4	0.35		256.81	18.73	0.00	0	256.81	18.73	12.84	0.94	12.84	0.94
5698014 thinned with Mineral Spirits 1:10																	
5698014	0.003789	27.6597	7.55	3.30	0.4	0.03		91.28	0.83	0.00	0	91.28	0.83	4.56	0.04	4.56	0.04
Mineral Spirits 66/3	0.0003789	2.76597	6.50	6.50	0	0		17.97	0	0.00	0	17.97	0	0.90	0	0.90	0
							Total=	109.25	0.83	0.00	0.00	109.25	0.83	5.46	0.04	5.46	0.04
96X069A (Thinned with 16.6% Glycol Ether EB)																	
96X069A	0.003463602	25.2842946	9.18	3.50	4	0.37		88.50	9.36	0.00	0	88.50	9.36	4.43	0.47	4.43	0.47
Glycol Ether EB	0.000689398	5.0326054	7.53	7.53	36	2.71		37.90	13.64	0.00	0	37.90	13.64	1.90	0.68	1.90	0.68
							Total=	126.40	23.00	0.00	0.00	126.40	23.00	6.33	1.15	6.33	1.15
9851579 (Thinned with Glycol Ether EB 1:5)																	
9851579	0.003905	28.5065	8.16	5.20	3.7	0.3		148.23	8.55	0.00	0	148.23	8.55	7.41	0.43	7.41	0.43
Glycol Ether EB	0.000781	5.7013	7.53	7.53	0	0		42.93	0	0.00	0	42.93	0	2.15	0	2.15	0.00
							Total=	191.16	8.55	0.00	0.00	191.16	8.55	9.56	0.43	9.56	0.43
62S6086 (Thinned with Glycol Ether EB 1:5)																	
62S6086	0.003738	27.2874	7.95	5.20	6.9	0.55		141.89	15.01	0.00	0	141.89	15.01	7.09	0.75	7.09	0.75
Glycol Ether EB	0.0007476	5.45748	7.53	7.53	0	0		41.10	0	0.00	0	41.10	0	2.06	0	2.06	0.00
							Total=	182.99	15.01	0.00	0.00	182.99	15.01	9.15	0.75	9.15	0.75
4001513V (Thinned with Glycol Ether EB 1:5)																	
4001513V	0.004423	32.2879	9.74	4.80	7.6	0.74		154.98	23.89	0.00	0	154.98	23.89	7.75	1.19	7.75	1.19
Glycol Ether EB	0.0008846	6.45758	7.53	7.53	0	0		48.63	0	0.00	0	48.63	0	2.43	0	2.43	0.00
							Total=	203.61	23.89	0.00	0.00	203.61	23.89	10.18	1.19	10.18	1.19
20S78AD (Thinned with Aromatic 100 1:9)																	
20S78AD	0.0028	20.3149341	8.6000	5.0000	19.1000	1.64		101.57	33.32	0.00	0	101.57	33.32	5.08	1.67	5.08	1.67
Aromatic 100	0.000309208	2.2572149	7.29	7.29	3.3	0.24		16.46	0.54	0.00	0	16.46	0.54	0.82	0.03	0.82	0.03
							Total=	118.03	33.86	0.00	0.00	118.03	33.86	5.90	1.7	5.90	1.70
26S96EJ (Thinned with PM Acetate 1:9)																	
26S96EJ	0.0037	27.22989403	11.6100	4.2000	4.6000	0.53		114.37	14.43	0.00	0	114.37	14.43	5.72	0.72	5.72	0.72
PM Acetate	0.000414458	3.025543781	8.01	8.01	0	0		24.23	0	0.00	0	24.23	0	1.21	0	1.21	0.00
							Total=	138.60	14.43	0.00	0.00	138.60	14.43	6.93	0.72	6.93	0.72
26S06MBVR (Thinned with Glycol Ether EB 1:5)																	
26S06MBVR	0.0053	38.4096514	8.7100	4.3000	9.6000	0.84		165.16	32.26	0.00	0	165.16	32.26	8.26	1.61	8.26	1.61
Glycol Ether EB	0.001052319	7.68193028	7.53	7.53	0	0		57.85	0	0.00	0	57.85	0	2.89	0	2.89	0.00
							Total=	223.01	32.26	0.00	0.00	223.01	32.26	11.15	1.61	11.15	1.61

Emission Unit ID: 2S
Emission Point ID: 4E, 5E, 6E, 7E
Unit Description: FECC Coater Oven Line #2 (Line #2)
Control Device: 1C

Calculations

Design Capacity: 7300 sheet/hr

VOC Emission Limits
Limit based on VOC emissions from 20S67WE (worst case)

	<i>Uncaptured</i>	<i>Controlled</i>	<i>Total</i>
<i>Controlled</i>	0.00	0.00	0.00
<i>Uncaptured</i>	0.00	0.00	0.00
<i>Total</i>	0.00	0.00	0.00

HAPS Emission Limits
Limit based on HAP emissions from Coating 9372-046 (worst case)

<i>Uncaptured</i>	<i>Controlled</i>	<i>Total</i>
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	Uncaptured	Controlled	Total
2006 Renewal			
PTE lb/hr	0.00	6.60	6.6
PTE			
lb/hr	0.00	5.12	5.12
Change =	0.00	-1.48	-1.48
lbs/hr	0	6.60	6.6

Hourly Emissions (lb/hr)				
Generated	Fugitive	Captured	Controlled	Total Release
100%	0%	100%	95.0%	(Fugitive+ Controlled)

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Ardagh Metal Packaging USA, Inc.
Weirton, WV
Title V Permit Renewal Application
R30-00900012-2012

Emission Unit ID: 2S
Emission Point ID: 4E, 5E, 6E, 7E
Unit Description: FECO Coater Oven Line #2 (Line #2)
Control Device: 1C

Purpose: To determine the hourly emissions limits for Coating Line 2 by evaluating emissions from individual coatings. The emissions are based on the maximum operations of the line which includes the maximum production, maximum application rate for the coating, and required control efficiencies. The coating that results in the highest VOC and/or HAP emissions was used to set the requested emissions limit. Emissions limits were compared to the Permit R13-1042D.

Calculations

Coating Line Permitted Rates of Operation and Emissions
Design Capacity: 7300 sheet/hr

Uncontrolled: 0.00%
Capture Efficiency: 100.00%
Control Efficiency: 95.00%
Reference: Permit R13-1042D

VOC Emission Limits
Limit based on VOC emissions from 20567WE (worst case)

VOC Hourly Emission Limits (lb/hr)			
	Uncaptured	Controlled	Total
Current Limit lb/hr	0	14.83	14.83
PTE			
	Uncaptured	Controlled	Total
lb/hr	0.00	14.60	14.6
Change =	0.00	-0.23	-0.23
Requested Limit	0	14.83	14.83

HAPS Emission Limits
Limit based on HAP emissions from Coating 9372-046 (worst case)

HAPs Hourly Emission Limits (lb/hr)			
	Uncaptured	Controlled	Total
2006 Renewal			
PTE lb/hr	0.00	6.60	6.6
PTE			
	Uncaptured	Controlled	Total
lb/hr	0.00	5.12	5.12
Change =	0.00	-1.48	-1.48
lbs/hr	0	6.60	6.6

Estimated Hourly Emissions from Usage of Coatings

							Hourly Emissions (lb/hr)							
							Generated 100%	Fugitive 0%		Captured 100%	Controlled 95.0%		Total Release (Fugitive+ Controlled)	
Product	Gallons per	Gallons per	Unit Weight	VOC	HAP									
815547 Thinned with SC5256	0.004356	31.7988	8.3500	4.9265	6.0000	0.5	156.66	15.9	0.00	156.66	15.9	7.83	0.8	7.83 0.80
SC5256	0.0004356	3.17988	7.5750	7.5750	10.0000	0.76	24.09	2.42	0.00	24.09	2.42	1.20	0.12	1.20 0.12
Total=							180.75	18.32	0.00	180.75	18.32	9.03	0.92	9.03 0.92

Note: Unit weight (lb/gal), VOC content (lb/gal), and HAP weight percent are provided by Coating Supplier.

Ardagh Metal Packaging USA, Inc.
Weirton, WV
Title V Permit Renewal Application
R30-00900012-2012

Emission Unit ID: 175
Emission Point ID: 23E, 24E
Unit Description: Wagner Coater Oven Line #3 (Line #3)
Control Device: 2C

Purpose: To determine the hourly emissions limits for Coating Line 3 by evaluating emissions from individual coatings. The emissions are based on the maximum operations of the line which includes the maximum production, maximum application rate for the coating, and required control efficiencies. The coating that results in the highest VOC and/or HAP emissions was used to set the requested emissions limit. Emissions limits were compared to the Permit R13-1042D.

Calculations

Coating Line Permitted Rates of Operation and Emissions
Design Capacity: 7500 sheet/hr

Uncontrolled: 0.00%
Capture Efficiency: 100.00%
Control Efficiency: 98.00%
Reference: Permit R13-1042D

VOC Emission Limits
Limit based on VOC emissions from 20567WE (worst case)

VOC Hourly Emission Limits (lb/hr)			
Uncaptured		Controlled	Total
Current Limit	0	6.1	6.1
PTE			
lb/hr	Uncaptured	Controlled	Total
	0.00	6.00	6.00
Change =	0.00	-0.10	-0.10
Requested Limit	0	6.1	6.1

HAPS Emission Limits
Limit based on HAP emissions from Coating 9372-046 (worst case)

HAPs Hourly Emission Limits (lb/hr)			
Uncaptured		Controlled	Total
2006 Renewal	0.00	2.71	2.71
PTE			
lb/hr	Uncaptured	Controlled	Total
	0.00	2.10	2.10
Change =	0.00	-0.61	-0.61
lbs/hr	0	2.71	2.71

Estimated Hourly Emissions from Usage of Coatings

							Hourly Emissions (lb/hr)									
Product Name	Gallons per Sheet	Gallons per Hour	Unit Weight lb/gal	VOC (lb/gal)	HAP		Generated 100%		Fugitive 0%		Captured 100%		Controlled 98.0%		Total Release (Fugitive+ Controlled)	
					(% W)	(lb/gal)	VOC	HAP	VOC	HAP	VOC	HAP	VOC	HAP	VOC	HAP
9851-577 (Thinned with Glycol Ether EB 1:5)																
9851-577	0.003584	26.88	8.10	5.10	7.2	0.58	137.09	15.59	0.00	0	137.09	15.59	2.74	0.31	2.74	0.31
Glycol Ether EB	0.0007168	5.376	7.53	7.53	0	0	40.48	0	0.00	0	40.48	0	0.81	0	0.81	0.00
						Total=	177.57	15.59	0.00	0.00	177.57	15.59	3.55	0.31	3.55	0.31
20582AA (Thinned with Aromatic 100 1:9)																
20582AA	0.002532	18.99	8.10	6.20	7.1	0.58	117.74	11.01	0.00	0	117.74	11.01	2.35	0.22	2.35	0.22
Aromatic 100	0.000281333	2.11	7.29	7.29	3.3	0.24	15.38	0.51	0.00	0	15.38	0.51	0.31	0.01	0.31	0.01
						Total=	133.12	11.52	0.00	0.00	133.12	11.52	2.66	0.23	2.66	0.23
20567WE thinned with SC2021 1:9																
20567WE	0.00626	46.95	8.35	5.50	10.2	0.85	258.23	39.91	0.00	0	258.23	39.91	5.16	0.8	5.16	0.80
SC2021	0.000695556	5.216666667	8.01	8.01	0	0	41.79	0	0.00	0	41.79	0	0.84	0	0.84	0.00
						Total=	300.02	39.91	0.00	0.00	300.02	39.91	6.00	0.80	6.00	0.80
6256054 thinned with Glycol Ether EB at 1:5																
6256054	0.0049325	36.99375	8.04	5.30	20.2	1.62	196.07	59.93	0.00	0	196.07	59.93	3.92	1.2	3.92	1.20
Glycol Ether EB	0.0009865	7.39875	7.53	7.53	0	0	55.71	0	0.00	0	55.71	0	1.11	0	1.11	0.00
						Total=	251.78	59.93	0.00	0.00	251.78	59.93	5.03	1.2	5.03	1.20
657 HE 1293 Not Thinned																
657 HE 1293	0.003428	25.71	7.99	5.39	15.79	1.26	138.58	32.39	0.00	0	138.58	32.39	2.77	0.65	2.77	0.65
657 HE 13501 Not Thinned																
657 HE 13501	0.007329	54.9675	8.67	4.80	4	0.35	263.84	19.24	0.00	0	263.84	19.24	5.28	0.38	5.28	0.38
5698014 thinned with Mineral Spirits 1:10																
5698014	0.003789	28.4175	7.55	3.30	0.4	0.03	93.78	0.85	0.00	0	93.78	0.85	1.88	0.02	1.88	0.02
Mineral Spirits 66/3	0.0003789	2.84175	6.50	6.50	0	0	18.46	0	0.00	0	18.46	0	0.37	0	0.37	0
						Total=	112.24	0.85	0.00	0.00	112.24	0.85	2.25	0.02	2.25	0.02
96X069A (Thinned with 16.6% Glycol Ether EB)																
96X069A	0.003463602	25.977015	9.18	3.50	4	0.37	90.92	9.61	0.00	0	90.92	9.61	1.82	0.19	1.82	0.19
Glycol Ether EB	0.000689398	5.170485	7.53	7.53	36	2.71	38.94	14.01	0.00	0	38.94	14.01	0.78	0.28	0.78	0.28
						Total=	129.86	23.62	0.00	0.00	129.86	23.62	2.60	0.47	2.60	0.47
9851579 (Thinned with Glycol Ether EB 1:5)																
9851579	0.003905	29.2875	8.16	5.20	3.7	0.3	152.30	8.79	0.00	0	152.30	8.79	3.05	0.18	3.05	0.18
Glycol Ether EB	0.000781	5.8575	7.53	7.53	0	0	44.11	0	0.00	0	44.11	0	0.88	0	0.88	0.00
						Total=	196.41	8.79	0.00	0.00	196.41	8.79	3.93	0.18	3.93	0.18
6256086 (Thinned with Glycol Ether EB 1:5)																
6256086	0.003738	28.035	7.95	5.20	6.9	0.55	145.78	15.42	0.00	0	145.78	15.42	2.92	0.31	2.92	0.31
Glycol Ether EB	0.0007476	5.607	7.53	7.53	0	0	42.22	0	0.00	0	42.22	0	0.84	0	0.84	0.00
						Total=	188.00	15.42	0.00	0.00	188.00	15.42	3.76	0.31	3.76	0.31
4001S13V (Thinned with Glycol Ether EB 1:5)																
4001S13V	0.004423	33.1725	9.74	4.80	7.6	0.74	159.23	24.55	0.00	0	159.23	24.55	3.18	0.49	3.18	0.49
Glycol Ether EB	0.0008846	6.6345	7.53	7.53	0	0	49.96	0	0.00	0	49.96	0	1.00	0	1.00	0.00
						Total=	209.19	24.55	0.00	0.00	209.19	24.55	4.18	0.49	4.18	0.49
20578AD (Thinned with Aromatic 100 1:9)																
20578AD	0.0028	20.87150764	8.6000	5.0000	19.1000	1.64	104.36	34.23	0.00	0	104.36	34.23	2.09	0.68	2.09	0.68
Aromatic 100	0.000309208	2.319056404	7.29	7.29	3.3	0.24	16.91	0.56	0.00	0	16.91	0.56	0.34	0.01	0.34	0.01
						Total=	121.27	34.79	0.00	0.00	121.27	34.79	2.43	0.69	2.43	0.69
26596EJ (Thinned with PM Acetate 1:9)																
26596EJ	0.0037	27.97591852	11.6100	4.2000	4.6000	0.53	117.50	14.83	0.00	0	117.50	14.83	2.35	0.3	2.35	0.30
PM Acetate	0.000414458	3.108435392	8.01	8.01	0	0	24.90	0	0.00	0	24.90	0	0.50	0	0.50	0.00
						Total=	142.40	14.83	0.00	0.00	142.40	14.83	2.85	0.30	2.85	0.30
26506MBVR (Thinned with Glycol Ether EB 1:5)																
26506MBVR	0.0053	39.46197061	8.7100	4.3000	9.6000	0.84	169.69	33.15	0.00	0	169.69	33.15	3.39	0.66	3.39	0.66
Glycol Ether EB	0.001052319	7.892394123	7.53	7.53	0	0	59.43	0	0.00	0	59.43	0	1.19	0	1.19	0.00

Ardagh Metal Packaging USA, Inc.
Weirton, WV
Title V Permit Renewal Application
R30-00900012-2012

Emission Unit ID: 175
Emission Point ID: 23E, 24E
Unit Description: Wagner Coater Oven Line #3 (Line #3)
Control Device: 2C

Purpose: To determine the hourly emissions limits for Coating Line 3 by evaluating emissions from individual coatings. The emissions are based on the maximum operations of the line which includes the maximum production, maximum application rate for the coating, and required control efficiencies. The coating that results in the highest VOC and/or HAP emissions was used to set the requested emissions limit. Emissions limits were compared to the Permit R13-1042D.

Calculations

Coating Line Permitted Rates of Operation and Emissions
Design Capacity: 7500 sheet/hr

Uncontrolled: 0.00%
Capture Efficiency: 100.00%
Control Efficiency: 98.00%
Reference: Permit R13-1042D

VOC Emission Limits
Limit based on VOC emissions from 20567WE (worst case)

VOC Hourly Emission Limits (lb/hr)			
	Uncaptured	Controlled	Total
Current Limit	0	6.1	6.1
PTE			
lb/hr	0.00	6.00	6.00
Change =	0.00	-0.10	-0.10
Requested Limit	0	6.1	6.1

HAPS Emission Limits
Limit based on HAP emissions from Coating 9372-046 (worst case)

HAPs Hourly Emission Limits (lb/hr)			
	Uncaptured	Controlled	Total
2006 Renewal	0.00	2.71	2.71
PTE			
lb/hr	0.00	2.10	2.10
Change =	0.00	-0.61	-0.61
Requested Limit	0	2.71	2.71

Estimated Hourly Emissions from Usage of Coatings

						Hourly Emissions (lb/hr)									
Total=						229.12	33.15	0.00	0.00	229.12	33.15	4.58	0.66	4.58	0.66
31546AH Thinned with SC2021 1:9															
31546AH	0.0035	26.45629906	8.5700	5.1000	10.4000	0.89	134.93	23.55	0.00	0	134.93	23.55	2.70	0.47	2.70
SC2021	0.000391945	2.939588785	8.01	8.01	0	0	23.55	0	0.00	0	23.55	0	0.47	0	0.47
Total=						158.48	23.55	0.00	0.00	158.48	23.55	3.17	0.47	3.17	0.47
4348807 (Thinned with 6.6% Glycol Ether EB)															
4348807	0.0038	28.67348079	8.0898	5.5000	2.0000	0.16	157.70	4.59	0.00	0	157.70	4.59	3.15	0.09	3.15
Glycol Ether EB	0.00022671	1.700325	7.53	7.53	0	0	12.80	0	0.00	0	12.80	0	0.26	0	0.26
Total=						170.50	4.59	0.00	0.00	170.50	4.59	3.41	0.09	3.41	0.09
4348312 (Thinned with 6.6% Glycol Ether EB)															
4348312	0.0044	33.23980846	8.1000	5.5000	2.5000	0.2	182.82	6.65	0.00	0	182.82	6.65	3.66	0.13	3.66
Glycol Ether EB	0.00022671	1.700325	7.53	7.53	0	0	12.80	0	0.00	0	12.80	0	0.26	0	0.26
Total=						195.62	6.65	0.00	0.00	195.62	6.65	3.92	0.13	3.92	0.13
9009947VR (Thinned with Glycol Ether EB 1:5)															
9009947VR	0.0056	41.67369372	8.4500	5.3000	12.1000	1.02	220.87	42.51	0.00	0	220.87	42.51	4.42	0.85	4.42
Glycol Ether EB	0.001111298	8.334738744	7.53	7.53	0	0	62.76	0	0.00	0	62.76	0	1.26	0	1.26
Total=						283.63	42.51	0.00	0.00	283.63	42.51	5.68	0.85	5.68	0.85
31509AC Thinned with SC2021 1:9															
31509AC	0.0026	19.47192276	8.2200	4.4000	6.0000	0.49	85.68	9.54	0.00	0	85.68	9.54	1.71	0.19	1.71
SC2021	0.000288473	2.163546973	8.01	8.01	0	0	17.33	0	0.00	0	17.33	0	0.35	0	0.35
Total=						103.01	9.54	0.00	0.00	103.01	9.54	2.06	0.19	2.06	0.19
9372-030 (Thinned with Glycol Ether EB 1:5)															
9372-030	0.0036	26.67714777	7.8900	5.3000	0.7000	0.06	141.39	1.6	0.00	0	141.39	1.6	2.83	0.03	2.83
Glycol Ether EB	0.000711391	5.335429554	7.53	7.53	0	0	40.18	0	0.00	0	40.18	0	0.80	0	0.80
Total=						181.57	1.60	0.00	0.00	181.57	1.60	3.63	0.03	3.63	0.03
9372-046 (Thinned with Glycol Ether EB 1:5)															
9372-046	0.004123646	30.92734826	7.9300	5.3000	42.9000	3.4	163.91	105.15	0.00	0	163.91	105.15	3.28	2.1	2.10
Glycol Ether EB	0.000824729	6.185469653	7.53	7.53	0	0	46.58	0	0.00	0	46.58	0	0.93	0	0.93
Total=						210.49	105.15	0.00	0.00	210.49	105.15	4.21	2.1	4.21	2.10
9851-615 Gold (Thinned with Glycol Ether EB 1:5)															
9851-615 Gold	0.0037	27.78129789	8.1900	5.0000	12.1000	0.99	138.91	27.5	0.00	0	138.91	27.5	2.78	0.55	2.78
Glycol Ether EB	0.000740835	5.556259578	7.53	7.53	0	0	41.84	0	0.00	0	41.84	0	0.84	0	0.84
Total=						180.75	27.50	0.00	0.00	180.75	27.50	3.62	0.55	3.62	0.55
31544ME Thinned with PM Acetate 1:9															
31544ME	0.003439424	25.79568369	8.3500	5.0000	11.0000	0.92	128.98	23.73	0.00	0	128.98	23.73	2.58	0.47	2.58
PM Acetate	0.000382158	2.866187077	8.01	8.01	0	0	22.96	0	0.00	0	22.96	0	0.46	0	0.46
Total=						151.94	23.73	0.00	0.00	151.94	23.73	3.04	0.47	3.04	0.47
V7051AB Thinned with PM Acetate 1:9															
V7051AB	0.003737	28.0275	8.1500	5.3000	32.5000	2.65	148.55	74.27	0.00	0	148.55	74.27	2.97	1.49	2.97
PM Acetate	0.000415222	3.114166667	8.01	8.01	0	0	24.94	0	0.00	0	24.94	0	0.50	0	0.50
Total=						173.49	74.27	0.00	0.00	173.49	74.27	3.47	1.49	3.47	1.49
814030 Thinned with SC5256 1:10															
814030 Thinned with SC5256	0.002924	21.93	8.1700	5.3922	0.0000	0	118.25	0	0.00	0	118.25	0	2.37	0	2.37
SC5256	0.0002924	2.193	7.5750	7.5750	10.0000	0.76	16.61	1.67	0.00	0	16.61	1.67	0.33	0.03	0.33
Total=						134.86	1.67	0.00	0.00	134.86	1.67	2.70	0.03	2.70	0.03
816361 Thinned with SC1645 1:10															
816361 Thinned with SC1645	0.0056	42	8.2800	4.5540	5.1000	0.42	191.27	17.64	0.00	0	191.27	17.64	3.83	0.35	3.83
SC1645	0.00056	4.2	7.3500	7.3500	20.0000	1.47	30.87	6.17	0.00	0	30.87	6.17	0.62	0.12	0.62
Total=						222.14	23.81	0.00	0.00	222.14	23.81	4.45	0.47	4.45	0.47
816610 Thinned with SC1645 1:10															
816610 Thinned with SC1645	0.003813	28.5975	8.7600	3.8106	4.0000	0.35	108.97	10.01	0.00	0	108.97	10.01	2.18	0.2	2.18
SC1645	0.0003813	2.85975	7.3500	7.3500	20.0000	1.47	21.02	4.2	0.00	0	21.02	4.2	0.42	0.08	0.42
Total=						129.99	14.21	0.00	0.00	129.99	14.21	2.60	0.28	2.60	0.28
815547 Thinned with SC5256 1:10															

Ardagh Metal Packaging USA, Inc.
Weirton, WV
Title V Permit Renewal Application
R30-00900012-2012

Emission Unit ID: 175
Emission Point ID: 23E, 24E
Unit Description: Wagner Coater Oven Line #3 (Line #3)
Control Device: 2C

Purpose: To determine the hourly emissions limits for Coating Line 3 by evaluating emissions from individual coatings. The emissions are based on the maximum operations of the line which includes the maximum production, maximum application rate for the coating, and required control efficiencies. The coating that results in the highest VOC and/or HAP emissions was used to set the requested emissions limit. Emissions limits were compared to the Permit R13-1042D.

Calculations

Coating Line Permitted Rates of Operation and Emissions

Design Capacity: 7500 sheet/hr

Uncontrolled: 0.00%
Capture Efficiency: 100.00%
Control Efficiency: 98.00%
Reference: Permit R13-1042D

VOC Emission Limits
Limit based on VOC emissions from 20567WE (worst case)

VOC Hourly Emission Limits (lb/hr)			
	Uncaptured	Controlled	Total
Current Limit			
lb/hr	0	6.1	6.1
PTE			
	Uncaptured	Controlled	Total
lb/hr	0.00	6.00	6.00
Change =	0.00	-0.10	-0.10
Requested Limit	0	6.1	6.1

HAPS Emission Limits
Limit based on HAP emissions from Coating 9372-046 (worst case)

HAPs Hourly Emission Limits (lb/hr)			
	Uncaptured	Controlled	Total
2006 Renewal			
PTE lb/hr	0.00	2.71	2.71
PTE			
	Uncaptured	Controlled	Total
lb/hr	0.00	2.10	2.10
Change =	0.00	-0.61	-0.61
lbs/hr	0	2.71	2.71

Estimated Hourly Emissions from Usage of Coatings

Hourly Emissions (lb/hr)																
815547 Thinned with SC5256	0.004356	32.67	8.3500	4.9265	6.0000	0.5	160.95	16.34	0.00	0	160.95	16.34	3.22	0.33	3.22	0.33
SC5256	0.0004356	3.267	7.5750	7.5750	10.0000	0.76	24.75	2.48	0.00	0	24.75	2.48	0.50	0.05	0.50	0.05
						Total=	185.70	18.82	0.00	0.00	185.70	18.82	3.72	0.38	3.72	0.38

Note: Unit weight (lb/gal), VOC content (lb/gal), and HAP weight percent are provided by Coating Supplier.

Ardagh Metal Packaging USA, Inc.
Weirton, WV
Title V Permit Renewal Application
R30-00900012-2012

Emission Unit ID: 185
Emission Point ID: 28E, 29E
Unit Description: LTG Coater Oven Line #4 (Line #4)
Control Device: 3C

Purpose: To determine the hourly emissions limits for Coating Line 3 by evaluating emissions from individual coatings. The emissions are based on the maximum operations of the line which includes the maximum production, maximum application rate for the coating, and required control efficiencies. The coating that results in the highest VOC and/or HAP emissions was used to set the requested emissions limit. Emissions limits were compared to the Permit R13-1042D.

Calculations

Coating Line Permitted Rates of Operation and Emissions
Design Capacity: 7500 sheet/hr

Uncontrolled: 0.00%
Capture Efficiency: 100.00%
Control Efficiency: 99.00%
Reference: Permit R13-1042D

VOC Emission Limits
Limit based on VOC emissions from 20567WE (worst case)

VOC Hourly Emission Limits (lb/hr)			
Uncaptured		Controlled	Total
Current Limit	0	3.05	3.05
PTE			
lb/hr	Uncaptured 0.00	Controlled 3.00	Total 3.00
Change =	0.00	-0.05	-0.05
Requested Limit	0	3.05	3.05

HAPS Emission Limits
Limit based on HAP emissions from Coating 9372-046 (worst case)

HAPs Hourly Emission Limits (lb/hr)			
Uncaptured		Controlled	Total
2006 Renewal	0.00	1.35	1.35
PTE			
lb/hr	Uncaptured 0.00	Controlled 1.05	Total 1.05
Change =	0.00	-0.30	-0.30
lbs/hr	0	1.35	1.35

Estimated Hourly Emissions from Usage of Coatings

								Hourly Emissions (lb/hr)								Total Release (Fugitive+ Controlled)	
Product		Gallons per Sheet	Gallons per Hour	Unit Weight lb/gal	VOC (lb/gal)	HAP (% W) (lb/gal)		Generated 100%		Fugitive 0%		Captured 100%		Controlled 99.0%		Total Release (Fugitive+ Controlled)	
Name		Sheet	Hour	lb/gal	(lb/gal)	(% W)	(lb/gal)	VOC	HAP	VOC	HAP	VOC	HAP	VOC	HAP	VOC	HAP
9851-577 (Thinned with Glycol Ether EB 1:5)																	
9851-577		0.003584	26.88	8.10	5.10	7.2	0.58	137.09	15.59	0.00	0	137.09	15.59	1.37	0.16	1.37	0.16
Glycol Ether EB		0.0007168	5.376	7.53	7.53	0	0	40.48	0	0.00	0	40.48	0	0.40	0	0.40	0.00
							Total=	177.57	15.59	0.00	0.00	177.57	15.59	1.77	0.16	1.77	0.16
20S82AA (Thinned with Aromatic 100 1:9)																	
20S82AA		0.002532	18.99	8.10	6.20	7.1	0.58	117.74	11.01	0.00	0	117.74	11.01	1.18	0.11	1.18	0.11
Aromatic 100		0.000281333	2.11	7.29	7.29	3.3	0.24	15.38	0.51	0.00	0	15.38	0.51	0.15	0.01	0.15	0.01
							Total=	133.12	11.52	0.00	0.00	133.12	11.52	1.33	0.12	1.33	0.12
20S67WE thinned with SC2021 1:9																	
20S67WE		0.00626	46.95	8.35	5.50	10.2	0.85	258.23	39.91	0.00	0	258.23	39.91	2.58	0.4	2.58	0.40
SC2021		0.000695556	5.216666667	8.01	8.01	0	0	41.79	0	0.00	0	41.79	0	0.42	0	0.42	0.00
							Total=	300.02	39.91	0.00	0.00	300.02	39.91	3.00	0.40	3.00	0.40
62S6054 thinned with Glycol Ether EB at 1:5																	
62S6054		0.0049325	36.99375	8.04	5.30	20.2	1.62	196.07	59.93	0.00	0	196.07	59.93	1.96	0.6	1.96	0.60
Glycol Ether EB		0.0009865	7.39875	7.53	7.53	0	0	55.71	0	0.00	0	55.71	0	0.56	0	0.56	0.00
							Total=	251.78	59.93	0.00	0.00	251.78	59.93	2.52	0.6	2.52	0.60
657 HE 1293 Not Thinned																	
657 HE 1293		0.003428	25.71	7.99	5.39	15.79	1.26	138.58	32.39	0.00	0	138.58	32.39	1.39	0.32	1.39	0.32
657 HE 13501 Not Thinned																	
657 HE 13501		0.007329	54.9675	8.67	4.80	4	0.35	263.84	19.24	0.00	0	263.84	19.24	2.64	0.19	2.64	0.19
5698014 thinned with Mineral Spirits 1:10																	
5698014		0.003789	28.4175	7.55	3.30	0.4	0.03	93.78	0.85	0.00	0	93.78	0.85	0.94	0.01	0.94	0.01
Mineral Spirits 66/3		0.0003789	2.84175	6.50	6.50	0	0	18.46	0	0.00	0	18.46	0	0.18	0	0.18	0
							Total=	112.24	0.85	0.00	0.00	112.24	0.85	1.12	0.01	1.12	0.01
96X069A (Thinned with 16.6% Glycol Ether EB)																	
96X069A		0.003463602	25.977015	9.18	3.50	4	0.37	90.92	9.61	0.00	0	90.92	9.61	0.91	0.1	0.91	0.10
Glycol Ether EB		0.000689398	5.170485	7.53	7.53	36	2.71	38.94	14.01	0.00	0	38.94	14.01	0.39	0.14	0.39	0.14
							Total=	129.86	23.62	0.00	0.00	129.86	23.62	1.30	0.24	1.30	0.24
9851579 (Thinned with Glycol Ether EB 1:5)																	
9851579		0.003905	29.2875	8.16	5.20	3.7	0.3	152.30	8.79	0.00	0	152.30	8.79	1.52	0.09	1.52	0.09
Glycol Ether EB		0.000781	5.8575	7.53	7.53	0	0	44.11	0	0.00	0	44.11	0	0.44	0	0.44	0.00
							Total=	196.41	8.79	0.00	0.00	196.41	8.79	1.96	0.09	1.96	0.09
62S6086 (Thinned with Glycol Ether EB 1:5)																	
62S6086		0.003738	28.035	7.95	5.20	6.9	0.55	145.78	15.42	0.00	0	145.78	15.42	1.46	0.15	1.46	0.15
Glycol Ether EB		0.0007476	5.607	7.53	7.53	0	0	42.22	0	0.00	0	42.22	0	0.42	0	0.42	0.00
							Total=	188.00	15.42	0.00	0.00	188.00	15.42	1.88	0.15	1.88	0.15
4001S13V (Thinned with Glycol Ether EB 1:5)																	
4001S13V		0.004423	33.1725	9.74	4.80	7.6	0.74	159.23	24.55	0.00	0	159.23	24.55	1.59	0.25	1.59	0.25
Glycol Ether EB		0.0008846	6.6345	7.53	7.53	0	0	49.96	0	0.00	0	49.96	0	0.50	0	0.50	0.00
							Total=	209.19	24.55	0.00	0.00	209.19	24.55	2.09	0.25	2.09	0.25
20S78AD (Thinned with Aromatic 100 1:9)																	
20S78AD		0.0028	20.87150764	8.6000	5.0000	19.1000	1.64	104.36	34.23	0.00	0	104.36	34.23	1.04	0.34	1.04	0.34
Aromatic 100		0.000309208	2.319056404	7.29	7.29	3.3	0.24	16.91	0.56	0.00	0	16.91	0.56	0.17	0.01	0.17	0.01
							Total=	121.27	34.79	0.00	0.00	121.27	34.79	1.21	0.35	1.21	0.35
26S96EJ (Thinned with PM Acetate 1:9)																	
26S96EJ		0.0037	27.97591852	11.6100	4.2000	4.6000	0.53	117.50	14.83	0.00	0	117.50	14.83	1.18	0.15	1.18	0.15
PM Acetate		0.000414458	3.108435392	8.01	8.01	0	0	24.90	0	0.00	0	24.90	0	0.25	0	0.25	0.00
							Total=	142.40	14.83	0.00	0.00	142.40	14.83	1.43	0.15	1.43	0.15
26S06MBVR (Thinned with Glycol Ether EB 1:5)																	
26S06MBVR		0.0053	39.46197061	8.7100	4.3000	9.6000	0.84	169.69	33.15	0.00	0	169.69	33.15	1.70	0.33	1.70	0.33

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Emission Unit ID: 185
Emission Point ID: 28E, 29E
Unit Description: LTG Coater Oven Line #4 (Line #4)
Control Device: 3C

Purpose: To determine the hourly emissions limits for Coating Line 3 by evaluating emissions from individual coatings. The emissions are based on the maximum operations of the line which includes the maximum production, maximum application rate for the coating, and required control efficiencies. The coating that results in the highest VOC and/or HAP emissions was used to set the requested emissions limit. Emissions limits were compared to the Permit R13-1042D.

Calculations

Coating Line Permitted Rates of Operation and Emissions
Design Capacity: 7500 sheet/hr

Uncontrolled: 0.00%
Capture Efficiency: 100.00%
Control Efficiency: 99.00%
Reference: Permit R13-1042D

VOC Emission Limits
Limit based on VOC emissions from 20567WE (worst case)

VOC Hourly Emission Limits (lb/hr)			
Uncaptured		Controlled	Total
Current Limit	0	3.05	3.05
PTE			
lb/hr	Uncaptured 0.00	Controlled 3.00	Total 3.00
Change =	0.00	-0.05	-0.05
Requested Limit	0	3.05	3.05

HAPS Emission Limits
Limit based on HAP emissions from Coating 9372-046 (worst case)

HAPs Hourly Emission Limits (lb/hr)			
Uncaptured		Controlled	Total
2006 Renewal	0.00	1.35	1.35
PTE			
lb/hr	Uncaptured 0.00	Controlled 1.05	Total 1.05
Change =	0.00	-0.30	-0.30
lbs/hr	0	1.35	1.35

Estimated Hourly Emissions from Usage of Coatings

							Hourly Emissions (lb/hr)									
Glycol Ether EB	0.001052319	7.892394123	7.53	7.53	0	0	59.43	0	0.00	0	59.43	0	0.59	0	0.59	0.00
Total=							229.12	33.15	0.00	0.00	229.12	33.15	2.29	0.33	2.29	0.33
31S46AH Thinned with SC2021 1:9																
31S46AH	0.0035	26.45629906	8.5700	5.1000	10.4000	0.89	134.93	23.55	0.00	0	134.93	23.55	1.35	0.24	1.35	0.24
SC2021	0.000391945	2.939588785	8.01	8.01	0	0	23.55	0	0.00	0	23.55	0	0.24	0	0.24	0.00
Total=							158.48	23.55	0.00	0.00	158.48	23.55	1.59	0.24	1.59	0.24
4348807 (Thinned with 6.6% Glycol Ether EB)																
4348807	0.0038	28.67348079	8.0898	5.5000	2.0000	0.16	157.70	4.59	0.00	0	157.70	4.59	1.58	0.05	1.58	0.05
Glycol Ether EB	0.00022671	1.700325	7.53	7.53	0	0	12.80	0	0.00	0	12.80	0	0.13	0	0.13	0.00
Total=							170.50	4.59	0.00	0.00	170.50	4.59	1.71	0.05	1.71	0.05
4348312 (Thinned with 6.6% Glycol Ether EB)																
4348312	0.0044	33.23980846	8.1000	5.5000	2.5000	0.2	182.82	6.65	0.00	0	182.82	6.65	1.83	0.07	1.83	0.07
Glycol Ether EB	0.00022671	1.700325	7.53	7.53	0	0	12.80	0	0.00	0	12.80	0	0.13	0	0.13	0.00
Total=							195.62	6.65	0.00	0.00	195.62	6.65	1.96	0.07	1.96	0.07
9009947VR (Thinned with Glycol Ether EB 1:5)																
9009947VR	0.0056	41.67369372	8.4500	5.3000	12.1000	1.02	220.87	42.51	0.00	0	220.87	42.51	2.21	0.43	2.21	0.43
Glycol Ether EB	0.001111298	8.334738744	7.53	7.53	0	0	62.76	0	0.00	0	62.76	0	0.63	0	0.63	0.00
Total=							283.63	42.51	0.00	0.00	283.63	42.51	2.84	0.43	2.84	0.43
31S09AC Thinned with SC2021 1:9																
31S09AC	0.0026	19.47192276	8.2200	4.4000	6.0000	0.49	85.68	9.54	0.00	0	85.68	9.54	0.86	0.1	0.86	0.10
SC2021	0.000288473	2.163546973	8.01	8.01	0	0	17.33	0	0.00	0	17.33	0	0.17	0	0.17	0.00
Total=							103.01	9.54	0.00	0.00	103.01	9.54	1.03	0.1	1.03	0.10
9372-030 (Thinned with Glycol Ether EB 1:5)																
9372-030	0.0036	26.67714777	7.8900	5.3000	0.7000	0.06	141.39	1.6	0.00	0	141.39	1.6	1.41	0.02	1.41	0.02
Glycol Ether EB	0.000711391	5.335429554	7.53	7.53	0	0	40.18	0	0.00	0	40.18	0	0.40	0	0.40	0.00
Total=							181.57	1.60	0.00	0.00	181.57	1.60	1.81	0.02	1.81	0.02
9372-046 (Thinned with Glycol Ether EB 1:5)																
9372-046	0.004123646	30.92734826	7.9300	5.3000	42.9000	3.4	163.91	105.15	0.00	0	163.91	105.15	1.64	1.05	1.64	1.05
Glycol Ether EB	0.000824729	6.185469653	7.53	7.53	0	0	46.58	0	0.00	0	46.58	0	0.47	0	0.47	0.00
Total=							210.49	105.15	0.00	0.00	210.49	105.15	2.11	1.05	2.11	1.05
9851-615 Gold (Thinned with Glycol Ether EB 1:5)																
9851-615 Gold	0.0037	27.78129789	8.1900	5.0000	12.1000	0.99	138.91	27.5	0.00	0	138.91	27.5	1.39	0.28	1.39	0.28
Glycol Ether EB	0.000740835	5.556259578	7.53	7.53	0	0	41.84	0	0.00	0	41.84	0	0.42	0	0.42	0.00
Total=							180.75	27.50	0.00	0.00	180.75	27.50	1.81	0.28	1.81	0.28
31S44ME Thinned with PM Acetate 1:9																
31S44ME	0.003439424	25.79568369	8.3500	5.0000	11.0000	0.92	128.98	23.73	0.00	0	128.98	23.73	1.29	0.24	1.29	0.24
PM Acetate	0.000382158	2.866187077	8.01	8.01	0	0	22.96	0	0.00	0	22.96	0	0.23	0	0.23	0.00
Total=							151.94	23.73	0.00	0.00	151.94	23.73	1.52	0.24	1.52	0.24
V7051AB Thinned with PM Acetate 1:9																
V7051AB	0.003737	28.0275	8.1500	5.3000	32.5000	2.65	148.55	74.27	0.00	0	148.55	74.27	1.49	0.74	1.49	0.74
PM Acetate	0.000415222	3.114166667	8.01	8.01	0	0	24.94	0	0.00	0	24.94	0	0.25	0	0.25	0.00
Total=							173.49	74.27	0.00	0.00	173.49	74.27	1.74	0.74	1.74	0.74
814030 Thinned with SC5256 1:10																
814030 Thinned with SC5256	0.002924	21.93	8.1700	5.3922	0.0000	0	118.25	0	0.00	0	118.25	0	1.18	0	1.18	0.00
SC5256	0.0002924	2.193	7.5750	7.5750	10.0000	0.76	16.61	1.67	0.00	0	16.61	1.67	0.17	0.02	0.17	0.02
Total=							134.86	1.67	0.00	0.00	134.86	1.67	1.35	0.02	1.35	0.02
816361 Thinned with SC1645 1:10																
816361 Thinned with SC1645	0.0056	42	8.2800	4.5540	5.1000	0.42	191.27	17.64	0.00	0	191.27	17.64	1.91	0.18	1.91	0.18
SC1645	0.00056	4.2	7.3500	7.3500	20.0000	1.47	30.87	6.17	0.00	0	30.87	6.17	0.31	0.06	0.31	0.06
Total=							222.14	23.81	0.00	0.00	222.14	23.81	2.22	0.24	2.22	0.24
816610 Thinned with SC1645 1:10																
816610 Thinned with SC1645	0.003813	28.5975	8.7600	3.8106	4.0000	0.35	108.97	10.01	0.00	0	108.97	10.01	1.09	0.1	1.09	0.10
SC1645	0.0003813	2.85975	7.3500	7.3500	20.0000	1.47	21.02	4.2	0.00	0	21.02	4.2	0.21	0.04	0.21	0.04
Total=							129.99	14.21	0.00	0.00	129.99	14.21	1.30	0.14	1.30	0.14

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Emission Unit ID: 185
Emission Point ID: 28E, 29E
Unit Description: LTG Coater Oven Line #4 (Line #4)
Control Device: 3C

Purpose: To determine the hourly emissions limits for Coating Line 3 by evaluating emissions from individual coatings. The emissions are based on the maximum operations of the line which includes the maximum production, maximum application rate for the coating, and required control efficiencies. The coating that results in the highest VOC and/or HAP emissions was used to set the requested emissions limit. Emissions limits were compared to the Permit R13-1042D.

Calculations

Coating Line Permitted Rates of Operation and Emissions

Design Capacity: 7500 sheet/hr

Uncontrolled: 0.00%
Capture Efficiency: 100.00%
Control Efficiency: 99.00%
Reference: Permit R13-1042D

VOC Emission Limits
Limit based on VOC emissions from 20567WE (worst case)

VOC Hourly Emission Limits (lb/hr)			
	Uncaptured	Controlled	Total
Current Limit			
lb/hr	0	3.05	3.05
PTE			
	Uncaptured	Controlled	Total
lb/hr	0.00	3.00	3.00
Change =	0.00	-0.05	-0.05
Requested Limit	0	3.05	3.05

HAPS Emission Limits
Limit based on HAP emissions from Coating 9372-046 (worst case)

HAPs Hourly Emission Limits (lb/hr)			
	Uncaptured	Controlled	Total
2006 Renewal			
PTE lb/hr	0.00	1.35	1.35
PTE			
	Uncaptured	Controlled	Total
lb/hr	0.00	1.05	1.05
Change =	0.00	-0.30	-0.30
lbs/hr	0	1.35	1.35

Estimated Hourly Emissions from Usage of Coatings

Hourly Emissions (lb/hr)														
815547 Thinned with SC5256 1:10														
815547 Thinned with SC5256 1	0.004356	32.67	8.3500	4.9265	6.0000	0.5	160.95	16.34	0.00	0	160.95	16.34	1.61	0.16
SC5256	0.0004356	3.267	7.5750	7.5750	10.0000	0.76	24.75	2.48	0.00	0	24.75	2.48	0.25	0.02
						Total=	185.70	18.82	0.00	0.00	185.70	18.82	1.86	0.18

Note: Unit weight (lb/gal), VOC content (lb/gal), and HAP weight percent are provided by Coating Supplier.

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Purpose: Calculate hourly and annual emissions from the combustion of natural gas from the operation of Thermal Oxidizer #1.

Natural Gas Combustion Emissions from Thermal Oxidizer #1 (Unit ID: C1)

Operating Schedule: 8,760 hrs/yr
Heat Rating: 15,000,000 BTU/hr
Heat Content of Natural Gas: 1,000 BTU/ft³
Hourly Gas Consumption Rate: 15,000 ft³/hr
Required Gas per Hour: 0.015 (10⁶ft³/hr)
Required Gas per Year: 131.40 (10⁶ft³/yr)

Pollutant	Emission Factor (lb/10 ⁶ scf) ⁽¹⁾	Hourly Emissions (lbs/hr)	Annual Emissions (tpy)
Criteria Air Pollutants			
PM/PM10	7.6	0.11	0.50
CO	84	1.26	5.52
SO2	0.6	0.01	0.040
NOx	100	1.50	6.57
VOC	5.5	0.08	0.36
Hazardous Air Pollutants			
2-Methylnaphthalene	2.40E-05	0.00000036	0.00000158
3-Methylchloranthrene	1.80E-06	0.00000003	0.00000012
7,12-Dimethylbenz(a)anthracene	1.60E-05	0.00000024	0.00000105
Acenaphthene	1.80E-06	0.00000003	0.00000012
Acenaphthylene	1.80E-06	0.00000003	0.00000012
Anthracene	2.40E-06	0.00000004	0.00000016
Benz(a)anthracene	1.80E-06	0.00000003	0.00000012
Benzene	2.10E-03	0.00003150	0.00013797
Benzo(a)pyrene	1.20E-06	0.00000002	0.00000008
Benzo(b)fluoranthene	1.80E-06	0.00000003	0.00000012
Benzo(g,h,i)perylene	1.20E-06	0.00000002	0.00000008
Benzo(k)fluoranthene	1.80E-06	0.00000003	0.00000012
Chrysene	1.80E-06	0.00000003	0.00000012
Dibenzo(a,h)anthracene	1.20E-06	0.00000002	0.00000008
Dichlorobenzene	1.20E-03	0.00001800	0.00007884
Fluoranthene	3.00E-06	0.00000005	0.00000020
Fluorene	2.80E-06	0.00000004	0.00000018
Formaldehyde	7.50E-02	0.00112500	0.00492750
Hexane	1.80E+00	0.02700000	0.11826000
Indeno(1,2,3-cd)pyrene	1.80E-06	0.00000003	0.00000012
Naphthalene	6.10E-04	0.00000915	0.00004008
Phenanthrene	1.70E-05	0.00000026	0.00000112
Pyrene	5.00E-06	0.00000008	0.00000033
Toluene	3.40E-03	0.00005100	0.00022338
Total VOC HAPS		0.03	0.13
Arsenic	2.00E-04	0.00000300	0.00001314
Beryllium	1.20E-05	0.00000018	0.00000079
Cadmium	1.10E-03	0.00001650	0.00007227
Chromium	1.40E-03	0.00002100	0.00009198
Cobalt	8.40E-05	0.00000126	0.00000552
Manganese	3.80E-04	0.00000570	0.00002497
Mercury	2.60E-04	0.00000390	0.00001708
Nickel	2.10E-03	0.00003150	0.00013797
Selenium	2.40E-05	0.00000036	0.00000158
Total PM HAPS		0.00009	0.00037
Total HAPS		0.03009	0.13037

1. Emission factors from AP-42, External Combustion Sources (Chapter 1), Section 1.4 Natural Gas Combustion dated 7/98.

Ardagh Metal Packaging USA, Inc.
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Purpose: Calculate hourly and annual emissions from the combustion of natural gas from the operation of Thermal Oxidizer #2.

Natural Gas Combustion Emissions from Thermal Oxidizer #2 (Unit ID: C2)

Operating Schedule: 8,760 hrs/yr
Heat Rating: 6,000,000 BTU/hr
Heat Content of Natural Gas: 1,000 BTU/ft³
Hourly Gas Consumption Rate: 6,000 ft³/hr
Required Gas per Hour: 0.006 (10⁶ft³/hr)
Required Gas per Year: 52.56 (10⁶ft³/yr)

Pollutant	Emission Factor (lb/10 ⁶ scf) ⁽¹⁾	Hourly Emissions (lbs/hr)	Annual Emissions (tpy)
Criteria Air Pollutants			
PM/PM10	7.6	0.05	0.20
CO	84	0.50	2.21
SO2	0.6	0.004	0.020
NOX ⁽²⁾	50	0.30	1.31
VOC	5.5	0.03	0.14
Hazardous Air Pollutants			
2-Methylnaphthalene	2.40E-05	0.00000014	0.00000063
3-Methylchloranthrene	1.80E-06	0.00000001	0.00000005
7,12-Dimethylbenz(a)anthracene	1.60E-05	0.00000010	0.00000042
Acenaphthene	1.80E-06	0.00000001	0.00000005
Acenaphthylene	1.80E-06	0.00000001	0.00000005
Anthracene	2.40E-06	0.00000002	0.00000007
Benz(a)anthracene	1.80E-06	0.00000001	0.00000005
Benzene	2.10E-03	0.00001260	0.00005519
Benzo(a)pyrene	1.20E-06	0.00000001	0.00000004
Benzo(b)fluoranthene	1.80E-06	0.00000001	0.00000005
Benzo(g,h,i)perylene	1.20E-06	0.00000001	0.00000004
Benzo(k)fluoranthene	1.80E-06	0.00000001	0.00000005
Chrysene	1.80E-06	0.00000001	0.00000005
Dibenzo(a,h)anthracene	1.20E-06	0.00000001	0.00000004
Dichlorobenzene	1.20E-03	0.00000720	0.00003154
Fluoranthene	3.00E-06	0.00000002	0.00000008
Fluorene	2.80E-06	0.00000002	0.00000007
Formaldehyde	7.50E-02	0.00045000	0.00197100
Hexane	1.80E+00	0.01080000	0.04730400
Indeno(1,2,3-cd)pyrene	1.80E-06	0.00000001	0.00000005
Naphthalene	6.10E-04	0.00000366	0.00001603
Phenanathrene	1.70E-05	0.00000010	0.00000045
Pyrene	5.00E-06	0.00000003	0.00000013
Toluene	3.40E-03	0.00002040	0.00008935
Total VOC HAPS		0.02	0.05
Arsenic	2.00E-04	0.00000120	0.00000526
Beryllium	1.20E-05	0.00000007	0.00000032
Cadmium	1.10E-03	0.00000660	0.00002891
Chromium	1.40E-03	0.00000840	0.00003679
Cobalt	8.40E-05	0.00000050	0.00000221
Manganese	3.80E-04	0.00000228	0.00000999
Mercury	2.60E-04	0.00000156	0.00000683
Nickel	2.10E-03	0.00001260	0.00005519
Selenium	2.40E-05	0.00000014	0.00000063
Total PM HAPS		0.00004	0.00015
Total HAPS		0.02004	0.05015

1. Emission factors from AP-42, External Combustion Sources (Chapter 1), Section 1.4 Natural Gas Combustion dated 7/98.

2. The burner is a Low-NOx burner.

Ardagh Metal Packaging USA, Inc.
Weirton, WV
Title V Permit Renewal Application
R30-00900012-2012

Purpose: Calculate hourly and annual emissions from the combustion of natural gas from the operation of Thermal Oxidizer #3.

Natural Gas Combustion Emissions from Thermal Oxidizer #3 (Unit ID: C3)

Operating Schedule: 8,760 hrs/yr
Heat Rating: 6,000,000 BTU/hr
Heat Content of Natural Gas: 1,000 BTU/ft³
Hourly Gas Consumption Rate: 6,000 ft³/hr
Required Gas per Hour: 0.006 (10⁶ft³/hr)
Required Gas per Year: 52.56 (10⁶ft³/yr)

Pollutant	Emission Factor (lb/10 ⁶ scf) ⁽¹⁾	Hourly Emissions (lbs/hr)	Annual Emissions (tpy)
Criteria Air Pollutants			
PM/PM10	7.6	0.05	0.20
CO	84	0.50	2.21
SO2	0.6	0.004	0.020
NOX ⁽²⁾	50	0.30	1.31
VOC	5.5	0.03	0.14
Hazardous Air Pollutants			
2-Methylnaphthalene	2.40E-05	0.00000014	0.00000063
3-Methylchloranthrene	1.80E-06	0.00000001	0.00000005
7,12-Dimethylbenz(a)anthracene	1.60E-05	0.00000010	0.00000042
Acenaphthene	1.80E-06	0.00000001	0.00000005
Acenaphthylene	1.80E-06	0.00000001	0.00000005
Anthracene	2.40E-06	0.00000002	0.00000007
Benz(a)anthracene	1.80E-06	0.00000001	0.00000005
Benzene	2.10E-03	0.00001260	0.00005519
Benzo(a)pyrene	1.20E-06	0.00000001	0.00000004
Benzo(b)fluoranthene	1.80E-06	0.00000001	0.00000005
Benzo(g,h,i)perylene	1.20E-06	0.00000001	0.00000004
Benzo(k)fluoranthene	1.80E-06	0.00000001	0.00000005
Chrysene	1.80E-06	0.00000001	0.00000005
Dibenzo(a,h)anthracene	1.20E-06	0.00000001	0.00000004
Dichlorobenzene	1.20E-03	0.00000720	0.00003154
Fluoranthene	3.00E-06	0.00000002	0.00000008
Fluorene	2.80E-06	0.00000002	0.00000007
Formaldehyde	7.50E-02	0.00045000	0.00197100
Hexane	1.80E+00	0.01080000	0.04730400
Indeno(1,2,3-cd)pyrene	1.80E-06	0.00000001	0.00000005
Naphthalene	6.10E-04	0.00000366	0.00001603
Phenanthrene	1.70E-05	0.00000010	0.00000045
Pyrene	5.00E-06	0.00000003	0.00000013
Toluene	3.40E-03	0.00002040	0.00008935
Total VOC HAPS		0.02	0.05
Arsenic	2.00E-04	0.00000120	0.00000526
Beryllium	1.20E-05	0.00000007	0.00000032
Cadmium	1.10E-03	0.00000660	0.00002891
Chromium	1.40E-03	0.00000840	0.00003679
Cobalt	8.40E-05	0.00000050	0.00000221
Manganese	3.80E-04	0.00000228	0.00000999
Mercury	2.60E-04	0.00000156	0.00000683
Nickel	2.10E-03	0.00001260	0.00005519
Selenium	2.40E-05	0.00000014	0.00000063
Total PM HAPS		0.00004	0.00015
Total HAPS		0.02004	0.05015

1. Emission factors from AP-42, External Combustion Sources (Chapter 1), Section 1.4 Natural Gas Combustion dated 7/98.

2. The burner is a Low-NOx burner.

Ardagh Metal Packaging USA, Inc.
Weirton, WV
Title V Permit Renewal Application
R30-00900012-2012

Purpose: Summary of hourly and annual emissions from the combustion of natural gas from the operation of Thermal Oxidizers #1, #2 and #3.

Total Natural Gas Combustion Emissions from Thermal Oxidizers # 1-3 (Unit IDs: C1, C2, C3)

Pollutants	Hourly Emissions (lbs/hr)	Annual Emissions (tpy)
Criteria Air Pollutants		
PM/PM10	0.17	0.90
CO	1.26	9.94
SO2	0.01	0.08
NOx	1.50	9.19
VOC	0.08	0.64
Hazardous Air Pollutants		
2-Methylnaphthalene	0.00000038	0.00000284
3-Methylchloranthrene	0.00000006	0.00000021
7,12-Dimethylbenz(a)anthracene	0.00000026	0.00000189
Acenaphthene	0.00002523	0.00000021
Acenaphthylene	0.00000004	0.00000021
Anthracene	0.00000006	0.00000029
Benz(a)anthracene	0.00000004	0.00000021
Benzene	0.00003152	0.00024835
Benzo(a)pyrene	0.00000004	0.00000015
Benzo(b)fluoranthene	0.00000004	0.00000021
Benzo(g,h,i)perylene	0.00001442	0.00000015
Benzo(k)fluoranthene	0.00000006	0.00000021
Chrysene	0.00000006	0.00000021
Dibenzo(a,h)anthracene	0.00090002	0.00000015
Dichlorobenzene	0.02161800	0.00014191
Fluoranthene	0.00000007	0.00000035
Fluorene	0.00000736	0.00000033
Formaldehyde	0.00112520	0.00886950
Hexane	0.02700006	0.21286800
Indeno(1,2,3-cd)pyrene	0.00004083	0.00000021
Naphthalene	0.04000915	0.00007214
Phenanthrene	0.00000266	0.00000201
Pyrene	0.00000022	0.00000059
Toluene	0.00006420	0.00040208
Total VOC HAPS	0.03	0.23
Arsenic	0.00000401	0.00002365
Beryllium	0.00000474	0.00000142
Cadmium	0.00001962	0.00013009
Chromium	0.00004620	0.00016556
Cobalt	0.00000155	0.00000993
Manganese	0.00008570	0.00004494
Mercury	0.04008390	0.00003075
Nickel	0.00003150	0.00024835
Selenium	0.00000036	0.00000284
Total PM HAPS	0.000090	0.000670
Total HAPS	0.03	0.23

Ardagh Metal Packaging USA, Inc.
Weirton, WV
Title V Permit Renewal Application
R30-00900012-2012

Purpose: The Litho Printer/Coater utilizes UV Black Ink and two other primary ink brands (INK and DKX) as listed below. Average VOC and HAP content for the ink by manufacturer was used to calculate the emissions from each product type. This line operates without capture or controls.

Emission Unit ID: 31S
Emission Point ID: 31E
Unit Description: Printer/Litho Line

UV Black

Density = 8.94 lbs/gal
Hourly Usage = 0.5 (gal/hr)
Annual Usage = 2,500 (gal/yr)

Pollutant	lbs/gal	Hourly Emissions (lbs/hr)	Annual Emissions (tpy)
VOC	0.01	0.01	0.01

INX Ink (Other Colors)

Density = 9.79 lbs/gal
Hourly Usage = 0.5 (gal/hr)
Annual Usage = 2,500 (gal/yr)

Pollutant	lbs/gal	Hourly Emissions (lbs/hr)	Annual Emissions (tpy)
VOC	1.02	0.51	1.28
Hazardous Air Pollutants			
Manganese Compounds	0.35	0.18	0.44

DKX Inks

Density = 9.664 lbs/gal
Hourly Usage = 0.5 (gal/hr)
Annual Usage = 1,850 (gal/yr)

Pollutant	lbs/gal	Hourly Emissions (lbs/hr)	Annual Emissions (tpy)
VOC	1.38	0.69	1.28

Requested Permit Limit:

Printing Total Emissions

Pollutant		Hourly Emissions (lbs/hr)	Annual Emissions (tpy)
VOC		1.03	2.58
Hazardous Air Pollutants			
Manganese Compounds		0.18	0.44
Total HAPS		0.18	0.44

NOTE: Inks are not used simultaneously, therefore, DNX was used for total VOC hourly emissions and INX for HAP hourly emissions.

Ardagh Metal Packaging USA, Inc.
Weirton, WV
Title V Permit Renewal Application
R30-00900012-2012

Emission Unit ID: 32S
Emission Point ID: 32E
Unit Description: Cleaning
Control Device: NA

A. Purpose
Estimate emissions from cleaning solvents used at the site.

B. Calculations
For all washup operations, assumes 50% Loss Rate. Based on Mass Balance.

4212-2 Washup Solvent

	Density:	6.98	lbs/gal		
	Estimated Hourly Usage Rate:	40	gal/hr		
	Estimated Annual Usage Rate:	10,000	gal/yr		
Pollutant	Density (lb/gal)	Loss Rate (1)	Hourly Emissions (lbs/hr)	Yearly Emissions (tpy)	
VOC	6.98	0.5	139.60	17.45	
Methyl Isobutyl Ket	2.792	0.5	55.84	6.98	
Xylene	2.5826	0.5	51.65	6.46	
Ethylbenzene	0.698	0.5	13.96	1.75	
Cumene	0.0698	0.5	1.40	0.18	

**37 Percent Xylene Supplied by Sal Chemical 7/16/2013

Eastman MPK

	Density:	6.75	lbs/gal		
	Estimated Hourly Usage Rate:	1	gal/hr		
	Estimated Annual Usage Rate:	330	gal/yr		
Pollutant	Density (lb/gal)	Loss Rate (2)	Hourly Emissions (lbs/hr)	Yearly Emissions (tpy)	
VOC	6.75	1	6.75	1.11	
MIBK	0.3375	1	0.34	0.06	

- (1) 4212-2, SC6312 and SC1645 used for washup operations of coating lines; assume 50% loss rate based on conservative mass balance (50% is recycled back into the system and sent offsite)
(2) Eastman MPK used for belt cleaning; assume 100% loss rate
(3) IPA, UV Wash5700 and General Press Wash for other cleaning operations, assume 100% loss rate

Total Cleaning Emissions

Pollutant	Hourly Emissions (lbs/hr)	Yearly Emissions (tpy)
VOCs	165.53	49.24
Hazardous Air Pollutants		
MIBK	56.18	7.04
Xylene	66.17	6.54
Cumene	15.92	0.26
Ethylbenzene	58.06	1.97
Total HAPS	56.18	15.80

Note: 4212 and 4212-1 are no longer used. The worst case hourly and annual emissions were used for total cleaning VOC and HAP emissions

SC6312

	Density:	7.17	lbs/gal		
	Estimated Hourly Usage Rate:	40	gal/hr		
	Estimated Annual Usage Rate:	500	gal/yr		
Pollutant	Density (lb/gal)	Loss Rate (1)	Hourly Emissions (lbs/hr)	Yearly Emissions (tpy)	
VOC	7.17	0.5	143.32	0.90	
Xylene	0.3583	0.5	7.17	0.05	
Cumene	0.3583	0.5	7.17	0.05	

IPA Anhydrous

	Density:	6.58	lbs/gal		
	Estimated Hourly Usage Rate:	1	gal/hr		
	Estimated Annual Usage Rate:	5,000	gal/yr		
Pollutant	Density (lb/gal)	Loss Rate (3)	Hourly Emissions (lbs/hr)	Yearly Emissions (tpy)	
VOC	6.58	1	6.58	16.45	
HAPS	NA	1	NA	NA	

SC1645

	Density:	7.35	lbs/gal		
	Estimated Hourly Usage Rate:	40	gal/hr		
	Estimated Annual Usage Rate:	400	gal/yr		
Pollutant	Density (lb/gal)	Loss Rate (1)	Hourly Emissions (lbs/hr)	Yearly Emissions (tpy)	
VOC	7.35	0.5	147.00	0.74	
Xylene	0.3675	0.5	7.35	0.04	
Ethylbenzene	2.205	0.5	44.10	0.22	
Cumene	0.3675	0.5	7.35	0.04	

UV Wash 5700

	Density:	7.4	lbs/gal		
	Estimated Hourly Usage Rate:	1	gal/hr		
	Estimated Annual Usage Rate:	2,000	gal/yr		
Pollutant	Density (lb/gal)	Loss Rate (3)	Hourly Emissions (lbs/hr)	Yearly Emissions (tpy)	
VOC	5.7	1	5.70	5.70	
HAPS	NA	1	NA	NA	

General Press Wash

	Density:	6.9	lbs/gal		
	Estimated Hourly Usage Rate:	1	gal/hr		
	Estimated Annual Usage Rate:	2,000	gal/yr		
Pollutant	Density (lb/gal)	Loss Rate (3)	Hourly Emissions (lbs/hr)	Yearly Emissions (tpy)	
VOC	6.9	1	6.90	6.90	
HAPS	NA	1	NA	NA	

Ardagh Metal Packaging USA, Inc.
Weirton, WV
Title V Permit Renewal Application
R30-00900012-2012

Purpose: Determine total VOC emissions from the three bulk storage tanks associated with facility operations. The total VOC emissions are estimated by using Tanks 4.0.9d. The coatings stored in Bulk Tanks #1 and #2 may vary. The coating with the highest HAP content was used for the purposes of calculating the emissions. The emissions for Tanks #1 and #2 were calculated using a single chemical with the highest vapor pressure of the mixture. The emissions for Tank #3 were calculated using a single chemical (Ethylene Glycol EB). It is assumed that the total output from Tanks 4.0.9d represents the total VOC emissions from the tanks. To estimate the total HAP emissions from the tanks, it is assumed that the VOC's emissions have the same weight percent of HAPS as does the liquid.

Emission Unit ID: 15S

Emission Point ID: 8E

Unit Description: 10,000 gallon Bulk Storage Tank #1

Contents: Bulk Coating

VOC Emissions		
Tanks 4.0.9d Estimated Emissions:	342.43	lb/yr
Annual VOC Emissions	0.171215	tpy

HAPs Emissions	% HAP by Weight	Emission (tpy)
Total HAP Weight Percent*	42.9	0.07346
	HAP Total =	0.07346

based on HAP emissions from Coating 9372-046 (worst case), also used for Coater Line emissions

Emission Unit ID: 16S

Emission Point ID: 9E

Unit Description: 10,000 gallon Bulk Storage Tank #2

Contents: Bulk Coating

VOC Emissions		
Tanks 4.0.9d Estimated VOC Emissions	342.43	lb/yr
Annual VOC Emissions	0.171215	tpy

HAPs Emissions	% HAP by Weight	Emission (tpy)
Total HAP Weight Percent*	42.9	0.07346
	HAP Total =	0.07346

*based on HAP emissions from Coating 9372-046 (worst case), also used for Coater Line emissions

Emission Unit ID: 30S

Emission Point ID: 30E

Unit Description: 1,500 gallon Bulk Storage Tank #3

Contents: Glycol Ether EB

VOC Emissions		
Tanks 4.0.9d Estimated VOC Emissions	3.2	lb/yr
Annual VOC Emissions	0.0016	tpy

No HAPs

Total Bulk Tank Emissions

Annual Emissions (tpy)	
VOC	0.34
Total HAPS	0.14692

TANKS 4.0.9d

Emissions Report - Detail Format

Tank Identification and Physical Characteristics

Identification		
User Identification:	Ardagh Bulk Tanks 1 and 2	
City:	Weirton	
State:	West Virginia	
Company:	Ardagh Group	
Type of Tank:	Vertical Fixed Roof Tank	
Description:	Bulk Coating Storage Tanks - 10,000 gallons each.	

Tank Dimensions		
Shell Height (ft):	16.50	
Diameter (ft):	10.50	
Liquid Height (ft) :	15.00	
Avg. Liquid Height (ft):	15.00	
Volume (gallons):	10,000.00	
Turnovers:	20.00	
Net Throughput(gal/yr):	200,000.00	
Is Tank Heated (y/n):	N	

Paint Characteristics		
Shell Color/Shade:	Gray/Light	
Shell Condition	Good	
Roof Color/Shade:	Gray/Light	
Roof Condition:	Good	

Roof Characteristics		
Type:	Dome	
Height (ft)	0.50	
Radius (ft) (Dome Roof)	10.50	

Breather Vent Settings		
Vacuum Settings (psig):	-0.03	
Pressure Settings (psig)	0.03	

Meterological Data used in Emissions Calculations: Pittsburgh, Pennsylvania (Avg Atmospheric Pressure = 14.11 psia)

TANKS 4.0.9d

Emissions Report - Detail Format

Liquid Contents of Storage Tank

Ardagh Bulk Tanks 1 and 2 - Vertical Fixed Roof Tank

Weirton, West Virginia

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					
Coating	All	56.69	48.70	64.69	52.55	1.8471	1.5800	2.1495	32.8376			0.00	

TANKS 4.0.9d

Emissions Report - Detail Format

Detail Calculations (AP-42)

Ardagh Bulk Tanks 1 and 2 - Vertical Fixed Roof Tank

Weirton, West Virginia

Annual Emission Calcaulations	
Standing Losses (lb):	53.5063
Vapor Space Volume (cu ft):	151.5982
Vapor Density (lb/cu ft):	0.0109
Vapor Space Expansion Factor:	0.1035
Vented Vapor Saturation Factor:	0.8537
Tank Vapor Space Volume:	
Vapor Space Volume (cu ft):	151.5982
Tank Diameter (ft):	10.5000
Vapor Space Outage (ft):	1.7508
Tank Shell Height (ft):	16.5000
Average Liquid Height (ft):	15.0000

TANKS 4.0 Report

Roof Outage (ft):	0.2508
Roof Outage (Dome Roof)	
Roof Outage (ft):	0.2508
Dome Radius (ft):	10.5000
Shell Radius (ft):	5.2500
Vapor Density	
Vapor Density (lb/cu ft):	0.0109
Vapor Molecular Weight (lb/lb-mole):	32.8376
Vapor Pressure at Daily Average Liquid	
Surface Temperature (psia):	1.8471
Daily Avg. Liquid Surface Temp. (deg. R):	516.3645
Daily Average Ambient Temp. (deg. F):	50.3083
Ideal Gas Constant R	
(psia cuft / (lb-mol-deg R)):	10.731
Liquid Bulk Temperature (deg. R):	512.2183
Tank Paint Solar Absorptance (Shell):	0.5400
Tank Paint Solar Absorptance (Roof):	0.5400
Daily Total Solar Insulation	
Factor (Btu/sqft day):	1,202.9556
Vapor Space Expansion Factor	
Vapor Space Expansion Factor:	0.1035
Daily Vapor Temperature Range (deg. R):	31.9767
Daily Vapor Pressure Range (psia):	0.5695
Breather Vent Press. Setting Range(psia):	0.0600
Vapor Pressure at Daily Average Liquid	
Surface Temperature (psia):	1.8471
Vapor Pressure at Daily Minimum Liquid	
Surface Temperature (psia):	1.5800
Vapor Pressure at Daily Maximum Liquid	
Surface Temperature (psia):	2.1495
Daily Avg. Liquid Surface Temp. (deg R):	516.3645
Daily Min. Liquid Surface Temp. (deg R):	508.3704
Daily Max. Liquid Surface Temp. (deg R):	524.3587
Daily Ambient Temp. Range (deg. R):	19.1500
Vented Vapor Saturation Factor	
Vented Vapor Saturation Factor:	0.8537
Vapor Pressure at Daily Average Liquid:	
Surface Temperature (psia):	1.8471
Vapor Space Outage (ft):	1.7508
Working Losses (lb):	288.8301
Vapor Molecular Weight (lb/lb-mole):	32.8376
Vapor Pressure at Daily Average Liquid	
Surface Temperature (psia):	1.8471
Annual Net Throughput (gal/yr.):	200,000.0000
Annual Turnovers:	20.0000
Turnover Factor:	1.0000
Maximum Liquid Volume (gal):	10,000.0000
Maximum Liquid Height (ft):	15.0000
Tank Diameter (ft):	10.5000
Working Loss Product Factor:	1.0000
Total Losses (lb):	342.3365

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: Annual

Ardagh Bulk Tanks 1 and 2 - Vertical Fixed Roof Tank
Weirton, West Virginia

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Coating	288.83	53.51	342.34

TANKS 4.0.9d

Emissions Report - Detail Format

Tank Identification and Physical Characteristics

Identification

User Identification: Bulk Tank No. 3 (Revised)
 City: Weirton
 State: West Virginia
 Company: Impress USA
 Type of Tank: Vertical Fixed Roof Tank
 Description: Glycol Ether EB

Tank Dimensions

Shell Height (ft): 9.00
 Diameter (ft): 5.30
 Liquid Height (ft) : 9.00
 Avg. Liquid Height (ft): 8.00
 Volume (gallons): 1,500.00
 Turnovers: 102.67
 Net Throughput(gal/yr): 154,000.00
 Is Tank Heated (y/n): N

Paint Characteristics

Shell Color/Shade: Gray/Light
 Shell Condition: Good
 Roof Color/Shade: Gray/Light
 Roof Condition: Good

Roof Characteristics

Type: Dome
 Height (ft) 0.00
 Radius (ft) (Dome Roof) 5.30

Breather Vent Settings

Vacuum Settings (psig): -0.03
 Pressure Settings (psig) 0.03

Meteorological Data used in Emissions Calculations: Pittsburgh, Pennsylvania (Avg Atmospheric Pressure = 14.11 psia)

TANKS 4.0.9d

Emissions Report - Detail Format

Liquid Contents of Storage Tank

Bulk Tank No. 3 (Revised) - Vertical Fixed Roof Tank
 Weirton, West Virginia

Mixture/Component	Month	Daily Liquid Surf.			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					

TANKS 4.0.9d

Emissions Report - Detail Format

Detail Calculations (AP-42)

Bulk Tank No. 3 (Revised) - Vertical Fixed Roof Tank
Weirton, West Virginia

Annual Emission Calculations

Standing Losses (lb):	0.1515
Vapor Space Volume (cu ft):	30.0820
Vapor Density (lb/cu ft):	0.0002
Vapor Space Expansion Factor:	0.0582
Vented Vapor Saturation Factor:	0.9992

Tank Vapor Space Volume:	
Vapor Space Volume (cu ft):	30.0820
Tank Diameter (ft):	5.3000
Vapor Space Outage (ft):	1.3635
Tank Shell Height (ft):	9.0000
Average Liquid Height (ft):	8.0000
Roof Outage (ft):	0.3635

Roof Outage (Dome Roof)	
Roof Outage (ft):	0.3635
Dome Radius (ft):	5.3000
Shell Radius (ft):	2.6500

Vapor Density	
Vapor Density (lb/cu ft):	0.0002
Vapor Molecular Weight (lb/lb-mole):	118.1800
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0111
Daily Avg. Liquid Surface Temp. (deg. R):	516.3645
Daily Average Ambient Temp. (deg. F):	50.3083
Ideal Gas Constant R (psia cu ft / (lb-mol-deg R)):	10.731
Liquid Bulk Temperature (deg. R):	512.2183
Tank Paint Solar Absorptance (Shell):	0.5400
Tank Paint Solar Absorptance (Roof):	0.5400
Daily Total Solar Insulation Factor (Btu/sqft day):	1,202.9556

Vapor Space Expansion Factor	
Vapor Space Expansion Factor:	0.0582
Daily Vapor Temperature Range (deg. R):	31.9767
Daily Vapor Pressure Range (psia):	0.0072
Breather Vent Press. Setting Range (psia):	0.0600
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0111
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.0080
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.0152
Daily Avg. Liquid Surface Temp. (deg. R):	516.3645
Daily Min. Liquid Surface Temp. (deg. R):	508.3704
Daily Max. Liquid Surface Temp. (deg. R):	524.3587
Daily Ambient Temp. Range (deg. R):	19.1500

Vented Vapor Saturation Factor	
Vented Vapor Saturation Factor:	0.9992
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0111
Vapor Space Outage (ft):	1.3635

Working Losses (lb):	2.2134
Vapor Molecular Weight (lb/lb-mole):	118.1800

Vapor Pressure at Daily Average Liquid	
Surface Temperature (psia):	0.0111
Annual Net Throughput (gal/yr.):	154,000.0000
Annual Turnovers:	102.6667
Turnover Factor:	0.4589
Maximum Liquid Volume (gal):	1,500.0000
Maximum Liquid Height (ft):	9.0000
Tank Diameter (ft):	5.3000
Working Loss Product Factor:	1.0000
Total Losses (lb):	2.3650

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: Annual

Bulk Tank No. 3 (Revised) - Vertical Fixed Roof Tank
Weirton, West Virginia

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Ethylene Glycol Monobutyl Ether	2.21	0.15	2.36

Appendix D
Safety Data Sheets and HAP Data Sheets



Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product ID: 20S78AD
Product Name: ME 812 H OVERPRINT VARNISH
Product Use: Paint product.
Print date: 19/Jul/2013
Revision Date: 19/Jul/2013

Company Identification

The Valspar Corporation - Packaging Division
2001 Tracy St.
Pittsburgh, PA 15233

Manufacturer's Phone: 1-412-766-9300

24-Hour Medical Emergency Phone: 1-888-345-5732

2. HAZARDS IDENTIFICATION

Primary Routes of Exposure:

Inhalation
Ingestion
Skin absorption

Eye Contact:

- Severe eye irritation

Skin Contact:

- Causes skin irritation.
- May cause defatting of the skin.
- Dermatitis
- Harmful if absorbed through skin.
- Can be absorbed through skin.
- May cause sensitization by skin contact.

Ingestion:

- Irritation of the mouth, throat, and stomach.
- Harmful if swallowed.

Inhalation:

- Causes respiratory tract irritation.
- Harmful by inhalation.
- May cause damage to nasal and respiratory passages.
- May cause bronchopneumonia or bronchitis.
- May cause sensitization by inhalation.
- May cause pulmonary edema.
- May cause chemical pneumonia.

Target Organ and Other Health Effects:

- Causes headache, drowsiness or other effects to the central nervous system.
- Kidney injury may occur.
- Risk of serious damage to the lungs (by inhalation).
- Liver injury may occur.
- Unconsciousness
- Blood disorders
- Contains glycol ether which has been shown to cause blood effects damage in laboratory animals.

This product contains ingredients that may contribute to the following potential chronic health effects:

- Notice: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.
- Contains formaldehyde which is considered a potential carcinogen by the Occupational Health and Safety Administration.
- Possible sensitization.

Carcinogens:

- Possible cancer hazard. Contains material which may cause cancer based on animal data.
- Cancer hazard. Contains material which can cause cancer.

3. COMPOSITION / INFORMATION ON HAZARDOUS INGREDIENTS

Ingredient Name CAS-No.	Approx. Weight %	Chemical Name
PROPYLENEGLYCOL MONOMETHYL ETHER ACETATE 108-65-6	15 - 20	2-methoxy-1-methylethyl acetate
ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE 112-07-2	10 - 15	Ethylene glycol, monobutyl ether acetate
DIETHYLENE GLYCOL BUTYL ETHER 112-34-5	10 - 15	Diethylene glycol monobutyl ether
XYLENE 1330-20-7	1 - 5	Xylenes (o-, m-, p- isomers)
AROMATIC NAPHTHA, LIGHT 64742-95-6	1 - 5	Petroleum naphtha, light aromatic
1,2,4-TRIMETHYLBENZENE 95-63-6	1 - 5	1,2,4-Trimethylbenzene

3. COMPOSITION / INFORMATION ON HAZARDOUS INGREDIENTS

AROMATIC NAPHTHA, LIGHT 64742-95-6	1 - 5	Petroleum naphtha, light aromatic
ETHYLBENZENE 100-41-4	.1 - 1	Ethyl benzene
CUMENE 98-82-8	.1 - 1	Cumene
FORMALDEHYDE 50-00-0	0 - .099	Formaldehyde

If this section is blank there are no hazardous components per OSHA guidelines.

4. FIRST AID MEASURES

Eye Contact:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. If medical assistance is not immediately available, flush an additional 15 minutes. Get medical attention immediately.

Skin Contact:

Remove contaminated clothing and shoes. Wash off immediately with plenty of water for at least 15 minutes. Get medical attention, if symptoms develop or persist.

Ingestion:

Rinse mouth with water. Give one or two glasses of water. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Get medical attention immediately.

Inhalation:

Move injured person into fresh air and keep person calm under observation. Get medical attention immediately. For breathing difficulties, oxygen may be necessary. If breathing stops, provide artificial respiration. Place unconscious person on the side in the recovery position and ensure breathing.

Medical conditions aggravated by exposure:

Any respiratory or skin condition.

5. FIRE FIGHTING MEASURES

Flash point (Fahrenheit):	123
Flash point (Celsius):	51
Lower explosive limit (%):	1
Upper explosive limit (%):	9
Autoignition temperature:	not determined
Sensitivity to impact:	no
Sensitivity to static discharge:	Can be sensitive to static discharge hazards. Please see bonding and grounding information in Section 7.
Hazardous combustion products:	See Section 10.

Unusual fire and explosion hazards:

None known.

Extinguishing media:

Carbon dioxide, dry chemical, foam and/or water fog.

Fire fighting procedures:

Firefighters should be equipped with self-contained breathing apparatus and turn out gear. Keep containers and surroundings cool with water spray.

6. ACCIDENTAL RELEASE MEASURES

Action to be taken if material is released or spilled:

Ventilate the area. Avoid breathing dust or vapor. Use self-containing breathing apparatus or airmask for large spills in a confined area. Wipe, scrape or soak up in an inert material and put in a container for disposal. See section 7, "Handling and Storage", for proper container and storage procedures. Remove all sources of ignition. Soak up with inert absorbent material. Use only non-sparking tools. Avoid contact with eyes.

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage:

Keep away from heat, sparks and open flame. - No smoking. Keep container closed when not in use. Do not store above 120 degrees F. (49 degrees C). Based on flash point and vapor pressure, suitable storage should be provided in accordance with OSHA regulation 1910.106, Ontario OH&S regulation 851 section 22. Empty containers may contain product residue, including flammable or explosive vapors. Do not cut, puncture or weld on or near container. All label warnings must be observed until the container has been commercially cleaned or reconditioned. If the product is used near or above the flashpoint, an ignition hazard may be present. Activities, uses, or operations which liberate vapor (such as mixing or free fall of liquids) may also present an ignition hazard. Please ensure containers and other interconnected equipment are properly bonded and grounded at all times.

8. PERSONAL PROTECTIVE EQUIPMENT AND EXPOSURE CONTROLS

Personal Protective Equipment

Eye and face protection:

Wear safety glasses or goggles to protect against exposure.

Skin protection:

Appropriate chemical resistant gloves should be worn.

Other Personnel Protection Data:

To prevent skin contact wear protective clothing covering all exposed areas.

Respiratory protection:

If exposure cannot be controlled below applicable limits, use the appropriate NIOSH approved respirator such as an air purifying respirator with organic vapor cartridge and dust/mist filter. Consult the respirator manufacturer's literature to ensure that the respirator will provide adequate protection. Read and follow all respirator manufacturer's instructions.

Ventilation

Use only in well-ventilated areas. Ensure adequate ventilation, especially in confined areas. Ovens used for curing should contain a fresh air purge to prevent vapours from accumulating and creating a possible explosive mixture. Where the product is used in a hazardous classified area, use explosion-proof electrical/ventilating/lighting/equipment.

Exposure Guidelines

OSHA Permissible Exposure Limits (PEL's)

Ingredient Name CAS-No.	Approx. Weight %	TWA (final)	Ceilings limits (final)	Skin designations
XYLENE 1330-20-7	1 - 5	100 ppm TWA 435 mg/m ³ TWA		
ETHYLBENZENE 100-41-4	1 - 1	100 ppm TWA 435 mg/m ³ TWA		
CUMENE 98-82-8	1 - 1	245 mg/m ³ TWA 50 ppm TWA		prevent or reduce skin absorption
FORMALDEHYDE 50-00-0	0 - .099	0.75 ppm TWA		

ACGIH Threshold Limit Value (TLV's)

Ingredient Name CAS-No.	Approx. Weight %	TWA	STEL	Ceiling limits	Skin designations
ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE 112-07-2	10 - 15	20 ppm TWA			
XYLENE 1330-20-7	1 - 5	100 ppm TWA	150 ppm STEL		
1,2,4-TRIMETHYLBENZENE 95-63-6	1 - 5	25 PPM			
ETHYLBENZENE 100-41-4	1 - 1	100 ppm TWA	125 ppm STEL		
CUMENE 98-82-8	1 - 1	50 ppm TWA			
FORMALDEHYDE 50-00-0	0 - .099			0.3 ppm Ceiling	

9. PHYSICAL PROPERTIES

Odor:	Normal for this product type.
Physical State:	liquid
pH:	not determined
Vapor pressure:	90.2255639 mmHg @ 77°F (25°C)
Vapor density (air = 1.0):	5.6
Boiling point:	280.94°F (138°C)
Solubility in water:	not determined
Coefficient of water/oil distribution:	not determined
Density (lbs per US gallon):	8.6
Specific Gravity:	1.02
Evaporation rate (butyl acetate = 1.0):	0.6
Flash point (Fahrenheit):	123
Flash point (Celsius):	51
Lower explosive limit (%):	1
Upper explosive limit (%):	9
Autoignition temperature:	not determined

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	Heat.
Incompatibility:	Strong oxidizing agents
Hazardous Polymerization:	None anticipated.
Hazardous Decomposition Products:	Carbon monoxide and carbon dioxide.

Sensitivity to static discharge: Can be sensitive to static discharge hazards. Please see bonding and grounding information in Section 7.

11. TOXICOLOGICAL INFORMATION

Ingredient Name CAS-No.	Approx. Weight %	NIOSH - Selected LD50s and LC50s
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11. TOXICOLOGICAL INFORMATION

PROPYLENEGLYCOL MONOMETHYL ETHER ACETATE 108-65-6	15 - 20	= 8532 mg/kg Oral LD50 Rat > 5000 mg/kg Dermal LD50 Rabbit
ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE 112-07-2	10 - 15	= 1480 mg/kg Dermal LD50 Rabbit = 1600 mg/kg Oral LD50 Rat
DIETHYLENE GLYCOL BUTYL ETHER 112-34-5	10 - 15	= 2700 mg/kg Dermal LD50 Rabbit = 3384 mg/kg Oral LD50 Rat
XYLENE 1330-20-7	1 - 5	= 4300 mg/kg Oral LD50 Rat = 47635 mg/L Inhalation LC50 Rat 4 h = 5000 ppm Inhalation LC50 Rat 4 h > 1700 mg/kg Dermal LD50 Rabbit
AROMATIC NAPHTHA, LIGHT 64742-95-6	1 - 5	= 3400 ppm Inhalation LC50 Rat 4 h = 8400 mg/kg Oral LD50 Rat > 2000 mg/kg Dermal LD50 Rabbit > 5.2 mg/L Inhalation LC50 Rat 4 h
1,2,4-TRIMETHYLBENZENE 95-63-6	1 - 5	= 18 g/m ³ Inhalation LC50 Rat 4 h = 3400 mg/kg Oral LD50 Rat > 3160 mg/kg Dermal LD50 Rabbit
AROMATIC NAPHTHA, LIGHT 64742-95-6	1 - 5	= 3400 ppm Inhalation LC50 Rat 4 h = 8400 mg/kg Oral LD50 Rat > 2000 mg/kg Dermal LD50 Rabbit > 5.2 mg/L Inhalation LC50 Rat 4 h
ETHYLBENZENE 100-41-4	1 - 1	= 15354 mg/kg Dermal LD50 Rabbit = 17.2 mg/L Inhalation LC50 Rat 4 h = 3500 mg/kg Oral LD50 Rat
CUMENE 98-82-8	1 - 1	= 1400 mg/kg Oral LD50 Rat = 39000 mg/m ³ Inhalation LC50 Rat 4 h > 3160 mg/kg Dermal LD50 Rabbit
FORMALDEHYDE 50-00-0	0 - .099	= 0.578 mg/L Inhalation LC50 Rat 4 h = 500 mg/kg Oral LD50 Rat

Mutagens/Teratogens/Carcinogens:

Possible mutagen

Possible cancer hazard. Contains material which may cause cancer based on animal data. Cancer hazard. Contains material which can cause cancer.

Contains ethylbenzene, which has been determined by NTP to be an animal carcinogen with no known relevance to humans. IARC has classified ethylbenzene as possibly carcinogenic to humans (2b) on the basis of sufficient evidence of carcinogenicity in laboratory animals but inadequate evidence of cancer in humans.

Ingredient Name CAS-No.	Approx. Weight %	California Prop 65 - Reproductive (Female)	California Prop 65 - Carcinogen
ETHYLBENZENE 100-41-4	1 - 1		Listed. initial date 6/11/04 - carcinogen
CUMENE 98-82-8	1 - 1		carcinogen, initial date 4/6/10
FORMALDEHYDE 50-00-0	0 - .099		Listed. initial date 1/1/88 - carcinogen

Ingredient Name CAS-No.	Approx. Weight %	IARC Group 1 - Human Evidence	IARC Group 2A - Limited Human Data	IARC Group 2B - Sufficient Animal Data
ETHYLBENZENE 100-41-4	.1 - 1			Monograph 77 [2000]
CUMENE 98-82-8	.1 - 1			Monograph 101 [in preparation]
FORMALDEHYDE 50-00-0	0 - .099	Supplement 7 [1987] Monograph 62 [1995] Supplement 7 [1987]		

Ingredient Name CAS-No.	Approx. Weight %	NTP Known Carcinogens	NTP Suspect Carcinogens
FORMALDEHYDE 50-00-0	0 - .099		Reasonably Anticipated To Be A Human Carcinogen

Ingredient Name CAS-No.	Approx. Weight %	OSHA - Hazard Communication Carcinogens	OSHA - Specifically Regulated Carcinogens	ACGIH Carcinogens
ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE 112-07-2	10 - 15			A3 Confirmed Animal Carcinogen with Unknown Relevance to Humans
ETHYLBENZENE 100-41-4	.1 - 1	Present		A3 Confirmed Animal Carcinogen with Unknown Relevance to Humans
FORMALDEHYDE 50-00-0	0 - .099	Present	Irritant and potential cancer hazard - see 29 CFR 1910.1048	A2 Suspected Human Carcinogen

12. ECOLOGICAL DATA

No information on ecology is available.

13. DISPOSAL CONSIDERATIONS

Disposal should be made in accordance with federal, state and local regulations.

14. TRANSPORTATION INFORMATION

U.S. Department of Transportation

UN ID Number (msds):	UN1263
Proper Shipping Name:	PAINT
Hazard Class:	COMBUSTIBLE LIQUID
Packing Group:	III

U.S Hazmat and/or International DG shipment exceptions

The supplier may apply one of the following exceptions: Combustible Liquid, Consumer Commodity, Limited Quantity, Viscous Liquid, Does Not Sustain Combustion, or others, as allowed under 49CFR Hazmat Regulations. Please consult 49CFR Subchapter C to ensure that subsequent shipments comply with these exceptions.

Reportable Quantity Description:

International Air Transport Association (IATA):

Proper shipping name:	Paint
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International Maritime Organization (IMO):

Proper shipping name:
Marine Pollutant

PAINT
No

15. REGULATORY INFORMATION**U.S. FEDERAL REGULATIONS:**

Ingredient Name CAS-No.	Approx. Weight %	SARA 302	SARA 313	CERCLA RQ in lbs.
ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE 112-07-2	10 - 15		YES	
DIETHYLENE GLYCOL BUTYL ETHER 112-34-5	10 - 15		YES	
XYLENE 1330-20-7	1 - 5		form R reporting required for 1.0% de minimis concentration	100
1,2,4-TRIMETHYLBENZENE 95-63-6	1 - 5		Listed.	
ETHYLBENZENE 100-41-4	1 - 1		form R reporting required for 1.0% de minimis concentration	1000
CUMENE 98-82-8	1 - 1		form R reporting required for 1.0% de minimis concentration	5000
FORMALDEHYDE 50-00-0	0 - .099	EPCRA RQ = 100 lb	form R reporting required for 0.1% de minimis concentration	100

SARA 311/312 Hazard Class:

Acute: yes
Chronic: yes
Flammability: yes
Reactivity: no
Sudden Pressure: no

U.S. STATE REGULATIONS:**Right to Know:**

The specific chemical identity of a component may be withheld as a trade secret under 34 Pennsylvania Code, Chapter 317.

Pennsylvania Right To Know:

XYLENE	1330-20-7	
DIETHYLENE GLYCOL BUTYL ETHER		112-34-5
FORMALDEHYDE	50-00-0	
ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE		112-07-2
PROPYLENEGLYCOL MONOMETHYL ETHER ACETATE		108-65-6
AROMATIC NAPHTHA, LIGHT	64742-95-6	
AROMATIC NAPHTHA, LIGHT	64742-95-6	
1,2,4-TRIMETHYLBENZENE	95-63-6	

Additional Non-Hazardous Materials

PROPRIETARY ADDITIVE	Trade Secret
PROPRIETARY RESIN	Trade Secret
PROPRIETARY RESIN	Trade Secret

California Proposition 65:

WARNING: This product contains chemicals known to the State of California to cause cancer.

Rule 66 status of product

Photochemically reactive.

INTERNATIONAL REGULATIONS - Chemical Inventories

US TSCA Inventory:

All components of this product are in compliance with U.S. TSCA Chemical Substance Inventory Requirements.

Canada Domestic Substances List:

All components of this product are listed on the Domestic Substances List.

16. OTHER INFORMATION

HMIS Codes

Health:	2*
Flammability:	2
Reactivity:	1
PPE:	X - See Section 8 for Personal Protective Equipment (PPE).

Abbreviations:

OSHA - Occupational Safety and Health Administration, IARC - International Agency for Research on Cancer, NIOSH - National Institute of Occupational Safety and Health, NTP - National Toxicology Program, ACGIH - American Conference of Governmental Industrial Hygienists, SCAQMD - South Coast Air Quality Management District, TSCA - Toxic Substances Control Act, IATA - International Air Transport Association, IMO - International Maritime Organization, DOT - Department of Transportation, NA - Not applicable, NOT ESTAB - Not established, N.A.V. - Not available, RQ - Reportable quantity, WT - Weight, MG/CU M - Milligrams per cubic meter, G/L - Grams per liter, MM - Millimeters, MPPCF - Millions of particles per cubic foot, PPM - parts per million, PPT - parts per thousand, TCC/PM - Tag closed cup / Pensky-Martens, PB - Lead, PEL - Permissible exposure level, TWA - Time Weighted Average, STEL - Short term exposure limit, C - Celsius, F - Fahrenheit.

Disclaimer:

The data on this sheet represent typical values. Since application variables are a major factor in product performance, this information should serve only as a general guide. Valspar assumes no obligation or liability for use of this information. UNLESS VALSPAR AGREES OTHERWISE IN WRITING, VALSPAR MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AND DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR FREEDOM FROM PATENT INFRINGEMENT. VALSPAR WILL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES. Your only remedy for any defect in this product is the replacement of the defective product, or a refund of its purchase price, at our option. This MSDS contains additional information required by the state of Pennsylvania.

Preparation Information:

Prepared By:

Regulatory Affairs Department

Print date:

19/Jul/2013

Revision Date:

19/Jul/2013

Print

<< Back

Valspar Code: 20S78AD

CAS Number	Component	Weight Percent	Weight/Gallon	HAP
108-65-6	PROPYLENE GLYCOL MONO METHYL ETHER ACETATE	19.9	8.06	
112-07-2	ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE	14.5	7.84	✓
112-34-5	DIETHYLENE GLYCOL MONOBUTYL ETHER	14.5	7.96	✓
64742-95-6	AROMATIC NAPHTHA, LIGHT	3.1	7.25	
1330-20-7	XYLENE	2.4	7.23	✓
95-63-6	1,2,4-TRIMETHYLBENZENE	2.0	8.30	
100-41-4	BENZENE, ETHYL	0.5	7.25	✓
71-36-3	BUTANOL	0.3	6.75	
108-67-8	1,3,5 TRIMETHYLBENZENE	0.3	7.20	
111-76-2	ETHYLENE GLYCOL MONOBUTYL ETHER	0.2	7.51	
98-82-8	CUMENE	0.1	8.00	✓
103-65-1	PROPYLBENZENE	0.1	7.18	
64741-65-7	MINERAL SPIRITS	0.1	6.27	

SUM: 58.0**Lbs HAP per gallon of solids: 7.63****HAP Total Weight%: 32.0**

9/21/2016



Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product ID:	26S06MBVR
Product Name:	MODIFIED VINYL
Product Use:	Paint product.
Print date:	27/Jul/2014
Revision Date:	27/Jul/2014

Company Identification

The Valspar Corporation - Packaging Division
2001 Tracy St.
Pittsburgh, PA 15233

Manufacturer's Phone: 1-412-766-9300

24-Hour Medical Emergency Phone: 1-888-345-5732

2. HAZARDS IDENTIFICATION

Primary Routes of Exposure:

Inhalation
Ingestion
Skin absorption

Eye Contact:

- Severe eye irritation

Skin Contact:

- Causes skin irritation.
- Dermatitis
- May cause defatting of the skin.
- Harmful if absorbed through skin.
- Can be absorbed through skin.
- May cause sensitization by skin contact.

Ingestion:

- Irritation of the mouth, throat, and stomach.
- Harmful if swallowed.
- Aspiration hazard if swallowed - can enter lungs and cause damage.

Inhalation:

- Causes respiratory tract irritation.
- Harmful by inhalation.
- May cause chemical pneumonia.
- May cause damage to nasal and respiratory passages.
- May cause sensitization by inhalation.
- May cause pulmonary edema.

Target Organ and Other Health Effects:

- Causes headache, drowsiness or other effects to the central nervous system.
- Unconsciousness
- Liver injury may occur.
- Kidney injury may occur.
- Contains glycol ether which has been shown to cause blood effects damage in laboratory animals.
- Spleen damage may occur.

This product contains ingredients that may contribute to the following potential chronic health effects:

- Notice: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.
- Contains formaldehyde which is considered a potential carcinogen by the Occupational Health and Safety Administration.
- Possible sensitization.

Carcinogens:

- Cancer hazard. Contains material which can cause cancer.

3. COMPOSITION / INFORMATION ON HAZARDOUS INGREDIENTS

Ingredient Name CAS-No.	Approx. Weight %	Chemical Name
DIISOBUTYL KETONE 108-83-8	15 - 20	Diisobutylketone
ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2	10 - 15	2-Butoxyethanol
DIETHYLENE GLYCOL BUTYL ETHER 112-34-5	5 - 10	Diethylene glycol monobutyl ether
MINERAL SPIRITS 64742-47-8	1 - 5	Petroleum distillates, hydrotreated light
4,6-DIMETHYLHEPTAN-2- ONE 19549-80-5	1 - 5	2-Heptanone, 4,6-dimethyl-
FORMALDEHYDE 50-00-0	0 - .099	Formaldehyde

If this section is blank there are no hazardous components per OSHA guidelines.

4. FIRST AID MEASURES

4. FIRST AID MEASURES

Eye Contact:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. If medical assistance is not immediately available, flush an additional 15 minutes. Get medical attention immediately.

Skin Contact:

Remove contaminated clothing and shoes. Wash off immediately with plenty of water for at least 15 minutes. Get medical attention, if symptoms develop or persist.

Ingestion:

Rinse mouth with water. Give one or two glasses of water. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. If vomiting occurs, keep head lower than hips to prevent aspiration. Get medical attention immediately.

Inhalation:

Move injured person into fresh air and keep person calm under observation. Get medical attention immediately. For breathing difficulties, oxygen may be necessary. If breathing stops, provide artificial respiration. Place unconscious person on the side in the recovery position and ensure breathing.

Medical conditions aggravated by exposure:

Any respiratory or skin condition.

5. FIRE FIGHTING MEASURES

Flash point (Fahrenheit):	118
Flash point (Celsius):	48
Lower explosive limit (%):	0.5
Upper explosive limit (%):	10.6
Autoignition temperature:	not determined
Sensitivity to impact:	no
Sensitivity to static discharge:	Can be sensitive to static discharge hazards. Please see bonding and grounding information in Section 7.
Hazardous combustion products:	See Section 10.

Unusual fire and explosion hazards:

None known.

Extinguishing media:

Carbon dioxide, dry chemical, foam and/or water fog.

Fire fighting procedures:

Firefighters should be equipped with self-contained breathing apparatus and turn out gear. Keep containers and surroundings cool with water spray.

6. ACCIDENTAL RELEASE MEASURES

Action to be taken if material is released or spilled:

Ventilate the area. Avoid breathing dust or vapor. Use self-containing breathing apparatus or airmask for large spills in a confined area. Wipe, scrape or soak up in an inert material and put in a container for disposal. See section 7, "Handling and Storage", for proper container and storage procedures. Remove all sources of ignition. Soak up with inert absorbent material. Use only non-sparking tools. Avoid contact with eyes.

7. HANDLING AND STORAGE

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage:

Keep away from heat, sparks and open flame. - No smoking. Keep container closed when not in use. Do not store above 120 degrees F. (49 degrees C). Based on flash point and vapor pressure, suitable storage should be provided in accordance with OSHA regulation 1910.106, Ontario OH&S regulation 851 section 22. Empty containers may contain product residue, including flammable or explosive vapors. Do not cut, puncture or weld on or near container. All label warnings must be observed until the container has been commercially cleaned or reconditioned. If the product is used near or above the flashpoint, an ignition hazard may be present. Activities, uses, or operations which liberate vapor (such as mixing or free fall of liquids) may also present an ignition hazard. Please ensure containers and other interconnected equipment are properly bonded and grounded at all times.

8. PERSONAL PROTECTIVE EQUIPMENT AND EXPOSURE CONTROLS

Personal Protective Equipment

Eye and face protection:

Wear safety glasses or goggles to protect against exposure.

Skin protection:

Appropriate chemical resistant gloves should be worn.

Other Personnel Protection Data:

To prevent skin contact wear protective clothing covering all exposed areas.

Respiratory protection:

If exposure cannot be controlled below applicable limits, use the appropriate NIOSH approved respirator such as an air purifying respirator with organic vapor cartridge and dust/mist filter. Consult the respirator manufacturer's literature to ensure that the respirator will provide adequate protection. Read and follow all respirator manufacturer's instructions.

Ventilation

Use only in well-ventilated areas. Ensure adequate ventilation, especially in confined areas. Ovens used for curing should contain a fresh air purge to prevent vapours from accumulating and creating a possible explosive mixture. Where the product is used in a hazardous classified area, use explosion-proof electrical/ventilating/lighting/equipment.

Exposure Guidelines

OSHA Permissible Exposure Limits (PEL's)

Ingredient Name CAS-No.	Approx. Weight %	TWA (final)	Ceilings limits (final)	Skin designations
DIISOBUTYL KETONE 108-83-8	15 - 20	290 mg/m ³ TWA 50 ppm TWA		
ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2	10 - 15	240 mg/m ³ TWA 50 ppm TWA		prevent or reduce skin absorption
FORMALDEHYDE 50-00-0	0 - .099	0.75 ppm TWA		

ACGIH Threshold Limit Value (TLV's)

Ingredient Name CAS-No.	Approx. Weight %	TWA	STEL	Ceiling limits	Skin designations
DIISOBUTYL KETONE 108-83-8	15 - 20	25 ppm TWA			
ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2	10 - 15	20 ppm TWA			
FORMALDEHYDE 50-00-0	0 - .099			0.3 ppm Ceiling	

9. PHYSICAL PROPERTIES

Odor:	Normal for this product type.
Physical State:	liquid
pH:	not determined
Vapor pressure:	8.2706767 mmHg @ 68°F (20°C)
Vapor density (air = 1.0):	5.6
Boiling point:	302°F (150°C)
Solubility in water:	not determined
Coefficient of water/oil distribution:	not determined
Density (lbs per US gallon):	8.84
Specific Gravity:	1.04
Evaporation rate (butyl acetate = 1.0):	0.2
Flash point (Fahrenheit):	118
Flash point (Celsius):	48
Lower explosive limit (%):	0.5
Upper explosive limit (%):	10.6
Autoignition temperature:	not determined

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	Heat.
Incompatibility:	Strong oxidizing agents
Hazardous Polymerization:	None anticipated.
Hazardous Decomposition Products:	Carbon monoxide and carbon dioxide.

Sensitivity to static discharge: Can be sensitive to static discharge hazards. Please see bonding and grounding information in Section 7.

11. TOXICOLOGICAL INFORMATION

Ingredient Name CAS-No.	Approx. Weight %	NIOSH - Selected LD50s and LC50s
DIISOBUTYL KETONE 108-83-8	15 - 20	= 16 g/kg Dermal LD50 Rabbit = 5750 mg/kg Oral LD50 Rat > 2300 ppm Inhalation LC50 Rat 4 h
ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2	10 - 15	= 2.21 mg/L Inhalation LC50 Rat 4 h = 220 mg/kg Dermal LD50 Rabbit = 2270 mg/kg Dermal LD50 Rat = 450 ppm Inhalation LC50 Rat 4 h = 470 mg/kg Oral LD50 Rat
DIETHYLENE GLYCOL BUTYL ETHER 112-34-5	5 - 10	= 2700 mg/kg Dermal LD50 Rabbit = 3384 mg/kg Oral LD50 Rat
MINERAL SPIRITS 64742-47-8	1 - 5	> 2000 mg/kg Dermal LD50 Rabbit > 5.2 mg/L Inhalation LC50 Rat 4 h > 5000 mg/kg Oral LD50 Rat
FORMALDEHYDE 50-00-0	0 - .099	= 0.578 mg/L Inhalation LC50 Rat 4 h = 500 mg/kg Oral LD50 Rat

Mutagens/Teratogens/Carcinogens:

Possible mutagen

Cancer hazard. Contains material which can cause cancer.

Ingredient Name CAS-No.	Approx. Weight %	California Prop 65 - Reproductive (Female)	California Prop 65 - Carcinogen
FORMALDEHYDE 50-00-0	0 - .099		Listed. initial date 1/1/88 - carcinogen

Ingredient Name CAS-No.	Approx. Weight %	IARC Group 1 - Human Evidence	IARC Group 2A - Limited Human Data	IARC Group 2B - Sufficient Animal Data
FORMALDEHYDE 50-00-0	0 - .099	Supplement 7 [1987] Monograph 62 [1995] Supplement 7 [1987]		

Ingredient Name CAS-No.	Approx. Weight %	NTP Known Carcinogens	NTP Suspect Carcinogens
FORMALDEHYDE 50-00-0	0 - .099		Reasonably Anticipated To Be A Human Carcinogen

Ingredient Name CAS-No.	Approx. Weight %	OSHA - Hazard Communication Carcinogens	OSHA - Specifically Regulated Carcinogens	ACGIH Carcinogens
ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2	10 - 15			A3 Confirmed Animal Carcinogen with Unknown Relevance to Humans
FORMALDEHYDE 50-00-0	0 - .099	Present	Irritant and potential cancer hazard - see 29 CFR 1910.1048	A2 Suspected Human Carcinogen

12. ECOLOGICAL DATA

No information on ecology is available.

13. DISPOSAL CONSIDERATIONS

Disposal should be made in accordance with federal, state and local regulations.

14. TRANSPORTATION INFORMATION

U.S. Department of Transportation

UN ID Number (msds):	UN1263
Proper Shipping Name:	PAINT
Hazard Class:	COMBUSTIBLE LIQUID
Packing Group:	III

U.S Hazmat and/or International DG shipment exceptions

The supplier may apply one of the following exceptions: Combustible Liquid, Consumer Commodity, Limited Quantity, Viscous Liquid, Does Not Sustain Combustion, or others, as allowed under 49CFR Hazmat Regulations. Please consult 49CFR Subchapter C to ensure that subsequent shipments comply with these exceptions.

Reportable Quantity Description:

International Air Transport Association (IATA):

UN/ID No:	UN1263
Proper shipping name:	Paint
Hazard Class:	3

Packing Group:

III

International Maritime Organization (IMO):

UN/ID No:

UN1263

Proper shipping name:

PAINT

Hazard Class:

3

Packing Group:

III

Marine Pollutant

No

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

Ingredient Name CAS-No.	Approx. Weight %	SARA 302	SARA 313	CERCLA RQ in lbs.
ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2	10 - 15		YES	
DIETHYLENE GLYCOL BUTYL ETHER 112-34-5	5 - 10		YES	
FORMALDEHYDE 50-00-0	0 - .099	EPCRA RQ = 100 lb	form R reporting required for 0.1% de minimis concentration	100

SARA 311/312 Hazard Class:

Acute: yes
Chronic: yes
Flammability: yes
Reactivity: no
Sudden Pressure: no

U.S. STATE REGULATIONS:

Right to Know:

The specific chemical identity of a component may be withheld as a trade secret under 34 Pennsylvania Code, Chapter 317.

Pennsylvania Right To Know:

FORMALDEHYDE	50-00-0	
ETHYLENE GLYCOL MONOBUTYL ETHER		111-76-2
DIISOBUTYL KETONE	108-83-8	
4,6-DIMETHYLHEPTAN-2-ONE	19549-80-5	
MINERAL SPIRITS	64742-47-8	
DIETHYLENE GLYCOL BUTYL ETHER		112-34-5

Additional Non-Hazardous Materials

PROPRIETARY RESIN	Trade Secret
PROPRIETARY RESIN	Trade Secret
PROPRIETARY RESIN	Trade Secret

California Proposition 65:

WARNING! This product contains a chemical known in the State of California to cause cancer.

Rule 66 status of product

Photochemically reactive.

INTERNATIONAL REGULATIONS - Chemical Inventories

US TSCA Inventory:

All components of this product are in compliance with U.S. TSCA Chemical Substance Inventory Requirements.

Canada Domestic Substances List:

All components of this product are listed on the Domestic Substances List.

16. OTHER INFORMATION**HMIS Codes**

Health:	2*
Flammability:	2
Reactivity:	1
PPE:	X - See Section 8 for Personal Protective Equipment (PPE).

Abbreviations:

OSHA - Occupational Safety and Health Administration, IARC - International Agency for Research on Cancer, NIOSH - National Institute of Occupational Safety and Health, NTP - National Toxicology Program, ACGIH - American Conference of Governmental Industrial Hygienists, SCAQMD - South Coast Air Quality Management District, TSCA - Toxic Substances Control Act, IATA - International Air Transport Association, IMO - International Maritime Organization, DOT - Department of Transportation, NA - Not applicable, NOT ESTAB - Not established, N.A.V. - Not available, RQ - Reportable quantity, WT - Weight, MG/CU M - Milligrams per cubic meter, G/L - Grams per liter, MM - Millimeters, MPPCF - Millions of particles per cubic foot, PPM - parts per million, PPT - parts per thousand, TCC/PM - Tag closed cup / Pensky-Martens, PB - Lead, PEL - Permissible exposure level, TWA - Time Weighted Average, STEL - Short term exposure limit, C - Celsius, F - Fahrenheit.

Disclaimer:

The data on this sheet represent typical values. Since application variables are a major factor in product performance, this information should serve only as a general guide. Valspar assumes no obligation or liability for use of this information. UNLESS VALSPAR AGREES OTHERWISE IN WRITING, VALSPAR MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AND DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR FREEDOM FROM PATENT INFRINGEMENT. VALSPAR WILL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES. Your only remedy for any defect in this product is the replacement of the defective product, or a refund of its purchase price, at our option. This MSDS contains additional information required by the state of Pennsylvania.

Preparation Information:

Prepared By:	Regulatory Affairs Department
Print date:	27/Jul/2014
Revision Date:	27/Jul/2014

Print

<< Back

Valspar Code: 26S06MBVR

CAS Number	Component	Weight Percent	Weight/Gallon	HAP
108-83-8	DIISOBUTYL KETONE	19.5	6.73	
111-76-2	ETHYLENE GLYCOL MONOBUTYL ETHER	12.6	7.51	
112-34-5	DIETHYLENE GLYCOL MONOBUTYL ETHER	9.6	7.96	✓
64742-47-8	MINERAL SPIRITS	3.3	6.50	
19549-80-5	4,6-DIMETHYLHEPTAN-2-ONE	3.0	6.32	
64742-94-5	AROMATIC NAPHTHA, HEAVY	0.6	7.42	
71-36-3	BUTANOL	0.5	6.75	
108-82-7	2,6-DIMETHYL-4-HEPTANOL	0.4	6.83	

SUM: 49.5**Lbs HAP per gallon of solids: 2.12****HAP Total Weight%: 9.6**

9/21/2016



Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product ID: 26S96EJ
Product Name: 26S96EJ EXTERIOR CLOSURE COATING
Product Use: Paint product.
Print date: 12/Apr/2013
Revision Date: 03/Jan/2013

Company Identification

The Valspar Corporation - Packaging Division
2001 Tracy St.
Pittsburgh, PA 15233

Manufacturer's Phone: 1-412-766-9300

24-Hour Medical Emergency Phone: 1-888-345-5732

2. HAZARDS IDENTIFICATION

Primary Routes of Exposure:

Inhalation
Ingestion
Skin absorption

Eye Contact:

- Severe eye irritation
- Risk of serious damage to eyes.

Skin Contact:

- Causes skin irritation.
- Dermatitis
- May cause defatting of the skin.
- Harmful if absorbed through skin.
- Can be absorbed through skin.
- May cause sensitization by skin contact.

Ingestion:

- Irritation of the mouth, throat, and stomach.
- Harmful if swallowed.
- Aspiration hazard if swallowed - can enter lungs and cause damage.

Inhalation:

- Causes respiratory tract irritation.
- Harmful by inhalation.
- May cause chemical pneumonia.
- May cause damage to nasal and respiratory passages.
- May cause pulmonary edema.
- May cause sensitization by inhalation.

Target Organ and Other Health Effects:

- Causes headache, drowsiness or other effects to the central nervous system.
- Unconsciousness
- Liver injury may occur.
- Kidney injury may occur.
- Blood disorders
- Hearing loss.
- Contains glycol ether which has been shown to cause blood effects damage in laboratory animals.

This product contains ingredients that may contribute to the following potential chronic health effects:

- Notice: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.
- Possible sensitization.
- Contains formaldehyde which is considered a potential carcinogen by the Occupational Health and Safety Administration.

Carcinogens:

- Possible cancer hazard. Contains material which may cause cancer based on animal data.
- Cancer hazard. Contains material which can cause cancer.

3. COMPOSITION / INFORMATION ON HAZARDOUS INGREDIENTS

Ingredient Name CAS-No.	Approx. Weight %	Chemical Name
TITANIUM DIOXIDE 13463-67-7	30 - 35	Titanium dioxide
AROMATIC NAPHTHA, HEAVY 64742-94-5	15 - 20	Solvent naphtha, petroleum, heavy arom.
ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE 112-07-2	5 - 10	Ethylene glycol, monobutyl ether acetate
ETHYL 3- ETHOXYPROPIONATE 763-69-9	1 - 5	Ethyl 3-ethoxypropionate
NAPHTHALENE 91-20-3	1 - 5	Naphthalene
PROPRIETARY INERT	1 - 5	PROPRIETARY INERT

3. COMPOSITION / INFORMATION ON HAZARDOUS INGREDIENTS

PROPRIETARY INERT	1 - 5	PROPRIETARY INERT
PROPRIETARY RESIN	1 - 5	PROPRIETARY RESIN
DIMETHYL GLUTARATE 1119-40-0	1 - 5	Pentanedioic acid, dimethyl ester
N-BUTYL ALCOHOL 71-36-3	1 - 5	n-Butyl alcohol
FORMALDEHYDE 50-00-0	0 - .099	Formaldehyde

If this section is blank there are no hazardous components per OSHA guidelines.

4. FIRST AID MEASURES

Eye Contact:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. If medical assistance is not immediately available, flush an additional 15 minutes. Get medical attention immediately.

Skin Contact:

Remove contaminated clothing and shoes. Wash off immediately with plenty of water for at least 15 minutes. Get medical attention, if symptoms develop or persist.

Ingestion:

Rinse mouth with water. Give one or two glasses of water. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. If vomiting occurs, keep head lower than hips to prevent aspiration. Get medical attention immediately.

Inhalation:

Move injured person into fresh air and keep person calm under observation. Get medical attention immediately. For breathing difficulties, oxygen may be necessary. If breathing stops, provide artificial respiration. Place unconscious person on the side in the recovery position and ensure breathing.

Medical conditions aggravated by exposure:

Any respiratory or skin condition.

5. FIRE FIGHTING MEASURES

Flash point (Fahrenheit):	126
Flash point (Celsius):	52
Lower explosive limit (%):	1
Upper explosive limit (%):	11.3
Autoignition temperature:	not determined
Sensitivity to impact:	no
Sensitivity to static discharge:	Can be sensitive to static discharge hazards. Please see bonding and grounding information in Section 7.
Hazardous combustion products:	See Section 10.

Unusual fire and explosion hazards:

None known.

Extinguishing media:

Carbon dioxide, dry chemical, foam and/or water fog

Fire fighting procedures:

Firefighters should be equipped with self-contained breathing apparatus and turn out gear. Keep containers and surroundings cool with water spray.

6. ACCIDENTAL RELEASE MEASURES

Action to be taken if material is released or spilled:

Ventilate the area. Avoid breathing dust or vapor. Use self-containing breathing apparatus or airmask for large spills in a confined area. Wipe, scrape or soak up in an inert material and put in a container for disposal. See section 7, "Handling and Storage", for proper container and storage procedures. Remove all sources of ignition. Soak up with inert absorbent material. Use only non-sparking tools. Avoid contact with eyes.

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage:

Keep away from heat, sparks and open flame. - No smoking. Keep container closed when not in use. Do not store above 120 degrees F. (49 degrees C). Based on flash point and vapor pressure, suitable storage should be provided in accordance with OSHA regulation 1910.106, Ontario OH&S regulation 851 section 22. Empty containers may contain product residue, including flammable or explosive vapors. Do not cut, puncture or weld on or near container. All label warnings must be observed until the container has been commercially cleaned or reconditioned. If the product is used near or above the flashpoint, an ignition hazard may be present. Activities, uses, or operations which liberate vapor (such as mixing or free fall of liquids) may also present an ignition hazard. Please ensure containers and other interconnected equipment are properly bonded and grounded at all times.

8. PERSONAL PROTECTIVE EQUIPMENT AND EXPOSURE CONTROLS

Personal Protective Equipment

Eye and face protection:

Wear chemical goggles with splash shields or face shield. Contact lenses should not be worn when working with chemicals because contact lenses may contribute to the severity of an eye injury in case of exposure.

Skin protection:

Appropriate chemical resistant gloves should be worn.

Other Personnel Protection Data:

To prevent skin contact wear protective clothing covering all exposed areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Respiratory protection:

If exposure cannot be controlled below applicable limits, use the appropriate NIOSH approved respirator such as an air purifying respirator with organic vapor cartridge and dust/mist filter. Consult the respirator manufacturer's literature to ensure that the respirator will provide adequate protection. Read and follow all respirator manufacturer's instructions.

Ventilation

Use only in well-ventilated areas. Ensure adequate ventilation, especially in confined areas. Ovens used for curing should contain a fresh air purge to prevent vapours from accumulating and creating a possible explosive mixture. Where the product is used in a hazardous classified area, use explosion-proof electrical/ventilating/lighting/equipment.

Exposure Guidelines

OSHA Permissible Exposure Limits (PEL's)

Ingredient Name CAS-No.	Approx. Weight %	TWA (final)	Ceilings limits (final)	Skin designations
TITANIUM DIOXIDE 13463-67-7	30 - 35	15 mg/m ³ TWA dust total		
NAPHTHALENE 91-20-3	1 - 5	10 ppm TWA 50 mg/m ³ TWA		
PROPRIETARY INERT	1 - 5	20 mppcf or 80 mg/m ³ / %SiO ₂		

Ingredient Name CAS-No.	Approx. Weight %	TWA (final)	Ceilings limits (final)	Skin designations
N-BUTYL ALCOHOL 71-36-3	1 - 5	100 ppm TWA 300 mg/m ³ TWA		
FORMALDEHYDE 50-00-0	0 - .099	0.75 ppm TWA		

ACGIH Threshold Limit Value (TLV's)

Ingredient Name CAS-No.	Approx. Weight %	TWA	STEL	Ceiling limits	Skin designations
TITANIUM DIOXIDE 13463-67-7	30 - 35	10 mg/m ³ TWA			
ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE 112-07-2	5 - 10	20 ppm TWA			
NAPHTHALENE 91-20-3	1 - 5	10 ppm TWA	15 ppm STEL		CAN BE ABSORBED THROUGH THE SKIN
PROPRIETARY INERT	1 - 5	1 mg/m ³ TWA respirable fraction			
N-BUTYL ALCOHOL 71-36-3	1 - 5	20 ppm TWA			
FORMALDEHYDE 50-00-0	0 - .099			0.3 ppm Ceiling	

9. PHYSICAL PROPERTIES

Odor:	Normal for this product type.
Physical State:	liquid
pH:	not determined
Vapor pressure:	21.0526316 mmHg @ 228.2°F (109°C)
Vapor density (air = 1.0):	5.5
Boiling point:	243.86°F (118°C)
Solubility in water:	not determined
Coefficient of water/oil distribution:	not determined
Density (lbs per US gallon):	11.88
Specific Gravity:	1.44
Evaporation rate (butyl acetate = 1.0):	0.5
Flash point (Fahrenheit):	126
Flash point (Celsius):	52
Lower explosive limit (%):	1
Upper explosive limit (%):	11.3
Autoignition temperature:	not determined

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	Heat.
Incompatibility:	Strong oxidizing agents Acids or alkalis.
Hazardous Polymerization:	None anticipated.
Hazardous Decomposition Products:	Carbon monoxide and carbon dioxide. Metal oxide fumes.

10. STABILITY AND REACTIVITY

Sensitivity to static discharge:

Can be sensitive to static discharge hazards. Please see bonding and grounding information in Section 7.

11. TOXICOLOGICAL INFORMATION

Ingredient Name CAS-No.	Approx. Weight %	NIOSH - Selected LD50s and LC50s
TITANIUM DIOXIDE 13463-67-7	30 - 35	> 10000 mg/kg Oral LD50 Rat
AROMATIC NAPHTHA, HEAVY 64742-94-5	15 - 20	> 2000 mg/kg Dermal LD50 Rabbit > 5000 mg/kg Oral LD50 Rat > 590 mg/m ³ Inhalation LC50 Rat 4 h
ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE 112-07-2	5 - 10	= 1480 mg/kg Dermal LD50 Rabbit = 1600 mg/kg Oral LD50 Rat
ETHYL 3- ETHOXYPROPIONATE 763-69-9	1 - 5	= 10 mL/kg Dermal LD50 Rabbit = 3200 mg/kg Oral LD50 Rat
NAPHTHALENE 91-20-3	1 - 5	= 490 mg/kg Oral LD50 Rat > 20 g/kg Dermal LD50 Rabbit > 2500 mg/kg Dermal LD50 Rat > 340 mg/m ³ Inhalation LC50 Rat 1 h
PROPRIETARY INERT	1 - 5	> 5000 mg/kg Oral LD50 Rat
DIMETHYL GLUTARATE 1119-40-0	1 - 5	= 8191 mg/kg Oral LD50 Rat > 5.6 mg/L Inhalation LC50 Rat 4 h
N-BUTYL ALCOHOL 71-36-3	1 - 5	= 3400 mg/kg Dermal LD50 Rabbit = 790 mg/kg Oral LD50 Rat = 8000 ppm Inhalation LC50 Rat 4 h > 17.7 mg/L Inhalation LC50 Rat 4 h
FORMALDEHYDE 50-00-0	0 - .099	= 0.578 mg/L Inhalation LC50 Rat 4 h = 500 mg/kg Oral LD50 Rat

Mutagens/Teratogens/Carcinogens:

Possible mutagen

Possible cancer hazard. Contains material which may cause cancer based on animal data. Cancer hazard. Contains material which can cause cancer.

Contains TIO2 which is listed by IARC as a possible human carcinogen (Group 2B) based on animal data. Neither long term animal studies, nor human epidemiology studies of workers exposed to TIO2 provide an adequate basis to conclude TIO2 is carcinogenic. TIO2 is not classified as a carcinogen by NTP, U.S. OSHA, or the U.S. EPA.

Ingredient Name CAS-No.	Approx. Weight %	California Prop 65 - Reproductive (Female)	California Prop 65 - Carcinogen
NAPHTHALENE 91-20-3	1 - 5		Listed. initial date 4/19/02 - carcinogen
FORMALDEHYDE 50-00-0	0 - .099		Listed. initial date 1/1/88 - carcinogen

Ingredient Name CAS-No.	Approx. Weight %	IARC Group 1 - Human Evidence	IARC Group 2A - Limited Human Data	IARC Group 2B - Sufficient Animal Data
TITANIUM DIOXIDE 13463-67-7	30 - 35			Monograph 47 [1989]

Ingredient Name CAS-No.	Approx. Weight %	IARC Group 1 - Human Evidence	IARC Group 2A - Limited Human Data	IARC Group 2B - Sufficient Animal Data
NAPHTHALENE 91-20-3	1 - 5			Monograph 82 [2002]
FORMALDEHYDE 50-00-0	0 - .099	Supplement 7 [1987] Monograph 62 [1995] Supplement 7 [1987]		

Ingredient Name CAS-No.	Approx. Weight %	NTP Known Carcinogens	NTP Suspect Carcinogens
NAPHTHALENE 91-20-3	1 - 5		Reasonably Anticipated To Be A Human Carcinogen
FORMALDEHYDE 50-00-0	0 - .099		Reasonably Anticipated To Be A Human Carcinogen

Ingredient Name CAS-No.	Approx. Weight %	OSHA - Hazard Communication Carcinogens	OSHA - Specifically Regulated Carcinogens	ACGIH Carcinogens
TITANIUM DIOXIDE 13463-67-7	30 - 35	Present		
ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE 112-07-2	5 - 10			A3 Confirmed Animal Carcinogen with Unknown Relevance to Humans
NAPHTHALENE 91-20-3	1 - 5	Present		
FORMALDEHYDE 50-00-0	0 - .099	Present	Irritant and potential cancer hazard - see 29 CFR 1910.1048	A2 Suspected Human Carcinogen

12. ECOLOGICAL DATA

No information on ecology is available.

13. DISPOSAL CONSIDERATIONS

Disposal should be made in accordance with federal, state and local regulations.

14. TRANSPORTATION INFORMATION

U.S. Department of Transportation

UN ID Number (msds):	UN1263
Proper Shipping Name:	PAINT
Hazard Class:	COMBUSTIBLE LIQUID
Packing Group:	III

U.S Hazmat and/or International DG shipment exceptions

The supplier may apply one of the following exceptions: Combustible Liquid, Consumer Commodity, Limited Quantity, Viscous Liquid, Does Not Sustain Combustion, or others, as allowed under 49CFR Hazmat Regulations. Please consult 49CFR Subchapter C to ensure that subsequent shipments comply with these exceptions.

Reportable Quantity Description:

International Air Transport Association (IATA):

UN/ID No:	UN1263
Proper shipping name:	Paint

Hazard Class:
Packing Group:

3
III

International Maritime Organization (IMO):

UN/ID No:
Proper shipping name:
Hazard Class:
Packing Group:
Marine Pollutant
Marine Pollutant Ingredient 1
Marine Pollutant Ingredient 2

UN1263
PAINT
3
III
YES
NAPHTHALENE
AROMATIC NAPHTHA, HEAVY

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

Ingredient Name CAS-No.	Approx. Weight %	SARA 302	SARA 313	CERCLA RQ in lbs.
ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE 112-07-2	5 - 10		YES	
NAPHTHALENE 91-20-3	1 - 5		form R reporting required for 1.0% de minimis concentration	100
N-BUTYL ALCOHOL 71-36-3	1 - 5		form R reporting required for 1.0% de minimis concentration	5000
FORMALDEHYDE 50-00-0	0 - .099	EPCRA RQ = 100 lb	form R reporting required for 0.1% de minimis concentration	100

SARA 311/312 Hazard Class:

Acute: yes
Chronic: yes
Flammability: yes
Reactivity: no
Sudden Pressure: no

U.S. STATE REGULATIONS:

Right to Know:

The specific chemical identity of a component may be withheld as a trade secret under 34 Pennsylvania Code, Chapter 317.

Pennsylvania Right To Know:

FORMALDEHYDE	50-00-0	
N-BUTYL ALCOHOL	71-36-3	
PROPRIETARY RESIN	Trade Secret	
ETHYL 3-ETHOXYPROPIONATE	763-69-9	
AROMATIC NAPHTHA, HEAVY	64742-94-5	
NAPHTHALENE	91-20-3	
PROPRIETARY INERT	Trade Secret	
PROPRIETARY INERT	Trade Secret	
TITANIUM DIOXIDE	13463-67-7	
ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE		112-07-2
DIMETHYL GLUTARATE	1119-40-0	

Additional Non-Hazardous Materials

PROPRIETARY RESIN	Trade Secret
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California Proposition 65:

WARNING: This product contains chemicals known to the State of California to cause cancer.

Rule 66 status of product

Photochemically reactive.

INTERNATIONAL REGULATIONS - Chemical Inventories

US TSCA Inventory:

All components of this product are in compliance with U.S. TSCA Chemical Substance Inventory Requirements.

Canada Domestic Substances List:

All components of this product are listed on the Domestic Substances List.

16. OTHER INFORMATION

HMIS Codes

Health:	2*
Flammability:	2
Reactivity:	1
PPE:	X - See Section 8 for Personal Protective Equipment (PPE).

Abbreviations:

OSHA - Occupational Safety and Health Administration, IARC - International Agency for Research on Cancer, NIOSH - National Institute of Occupational Safety and Health, NTP - National Toxicology Program, ACGIH - American Conference of Governmental Industrial Hygienists, SCAQMD - South Coast Air Quality Management District, TSCA - Toxic Substances Control Act, IATA - International Air Transport Association, IMO - International Maritime Organization, DOT - Department of Transportation, NA - Not applicable, NOT ESTAB - Not established, N.A.V. - Not available, RQ - Reportable quantity, WT - Weight, MG/CU M - Milligrams per cubic meter, G/L - Grams per liter, MM - Millimeters, MPPCF - Millions of particles per cubic foot, PPM - parts per million, PPT - parts per thousand, TCC/PM - Tag closed cup / Pensky-Martens, PB - Lead, PEL - Permissible exposure level, TWA - Time Weighted Average, STEL - Short term exposure limit, C - Celsius, F - Fahrenheit.

Disclaimer:

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Preparation Information:

Prepared By:	Regulatory Affairs Department
Print date:	12/Apr/2013
Revision Date:	03/Jan/2013



Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product ID: 31S09AC
Product Name: POLYESTER VARNISH - NAPHTHALENE DEPLETED AND EPOXY FREE
Product Use: Paint product.
Print date: 28/Nov/2012
Revision Date: 11/May/2012

Company Identification

The Valspar Corporation - Packaging Division
2001 Tracy St.
Pittsburgh, PA 15233

Manufacturer's Phone: 1-412-766-9300

24-Hour Medical Emergency Phone: 1-888-345-5732

2. HAZARDS IDENTIFICATION

Primary Routes of Exposure:

Inhalation
Ingestion
Skin absorption

Eye Contact:

- Severe eye irritation
- Risk of serious damage to eyes.

Skin Contact:

- Causes skin irritation.
- Dermatitis
- May cause defatting of the skin.
- Harmful if absorbed through skin.
- May cause sensitization by skin contact.
- Can be absorbed through skin.

Ingestion:

- Irritation of the mouth, throat, and stomach
- Harmful if swallowed.
- Aspiration hazard if swallowed - can enter lungs and cause damage.

Inhalation:

- Causes respiratory tract irritation.
- Harmful by inhalation.
- May cause chemical pneumonia.
- May cause damage to nasal and respiratory passages.
- May cause sensitization by inhalation.
- May cause pulmonary edema.

Target Organ and Other Health Effects:

- Spleen damage may occur.
- Liver injury may occur.
- Unconsciousness
- Kidney injury may occur.
- Blood disorders
- Causes headache, drowsiness or other effects to the central nervous system.
- Hearing loss.
- Contains glycol ether which has been shown to cause blood effects damage in laboratory animals.

This product contains ingredients that may contribute to the following potential chronic health effects:

- Notice: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.
- Possible sensitization.
- Contains formaldehyde which is considered a potential carcinogen by the Occupational Health and Safety Administration.

Carcinogens:

- Cancer hazard. Contains material which can cause cancer.
- Possible cancer hazard. Contains material which may cause cancer based on animal data.

3. COMPOSITION / INFORMATION ON HAZARDOUS INGREDIENTS

Ingredient Name CAS-No.	Approx. Weight %	Chemical Name
AROMATIC NAPHTHA, HEAVY 64742-94-5	30 - 35	Solvent naphtha, petroleum, heavy arom.
ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2	10 - 15	2-Butoxyethanol
N-BUTYL ALCOHOL 71-36-3	1 - 5	n-Butyl alcohol
NAPHTHALENE 91-20-3	1 - 5	Naphthalene
FORMALDEHYDE 50-00-0	1 - 1	Formaldehyde

If this section is blank there are no hazardous components per OSHA guidelines.

4. FIRST AID MEASURES

Eye Contact:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. If medical assistance is not immediately available, flush an additional 15 minutes. Get medical attention immediately.

Skin Contact:

Remove contaminated clothing and shoes. Wash off immediately with plenty of water for at least 15 minutes. Get medical attention, if symptoms develop or persist.

Ingestion:

Rinse mouth with water. Give one or two glasses of water. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. If vomiting occurs, keep head lower than hips to prevent aspiration. Get medical attention immediately.

Inhalation:

Move injured person into fresh air and keep person calm under observation. Get medical attention immediately. For breathing difficulties, oxygen may be necessary. If breathing stops, provide artificial respiration. Place unconscious person on the side in the recovery position and ensure breathing.

Medical conditions aggravated by exposure:

Any respiratory or skin condition.

5. FIRE FIGHTING MEASURES

Flash point (Fahrenheit):	117
Flash point (Celsius):	47
Lower explosive limit (%):	1
Upper explosive limit (%):	11
Autoignition temperature:	not determined
Sensitivity to impact:	no
Sensitivity to static discharge:	Can be sensitive to static discharge hazards. Please see bonding and grounding information in Section 7.
Hazardous combustion products:	See Section 10.

Unusual fire and explosion hazards:

None known

Extinguishing media:

Carbon dioxide, dry chemical, foam and/or water fog.

Fire fighting procedures:

Firefighters should be equipped with self-contained breathing apparatus and turn out gear. Keep containers and surroundings cool with water spray.

6. ACCIDENTAL RELEASE MEASURES

Action to be taken if material is released or spilled:

Ventilate the area. Avoid breathing dust or vapor. Use self-containing breathing apparatus or airmask for large spills in a confined area. Wipe, scrape or soak up in an inert material and put in a container for disposal. See section 7, "Handling and Storage", for proper container and storage procedures. Remove all sources of ignition. Soak up with inert absorbent material. Use only non-sparking tools. Avoid contact with eyes.

7. HANDLING AND STORAGE

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage:

Keep away from heat, sparks and open flame. - No smoking. Keep container closed when not in use. Do not store above 120 degrees F. (49 degrees C). Based on flash point and vapor pressure, suitable storage should be provided in accordance with OSHA regulation 1910.106, Ontario OH&S regulation 851 section 22. Empty containers may contain product residue, including flammable or explosive vapors. Do not cut, puncture or weld on or near container. All label warnings must be observed until the container has been commercially cleaned or reconditioned. If the product is used near or above the flashpoint, an ignition hazard may be present. Activities, uses, or operations which liberate vapor (such as mixing or free fall of liquids) may also present an ignition hazard. Please ensure containers and other interconnected equipment are properly bonded and grounded at all times.

8. PERSONAL PROTECTIVE EQUIPMENT AND EXPOSURE CONTROLS

Personal Protective Equipment

Eye and face protection:

Wear chemical goggles with splash shields or face shield. Contact lenses should not be worn when working with chemicals because contact lenses may contribute to the severity of an eye injury in case of exposure.

Skin protection:

Appropriate chemical resistant gloves should be worn.

Other Personnel Protection Data:

To prevent skin contact wear protective clothing covering all exposed areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Respiratory protection:

If exposure cannot be controlled below applicable limits, use the appropriate NIOSH approved respirator such as an air purifying respirator with organic vapor cartridge and dust/mist filter. Consult the respirator manufacturer's literature to ensure that the respirator will provide adequate protection. Read and follow all respirator manufacturer's instructions.

Ventilation

Use only in well-ventilated areas. Ensure adequate ventilation, especially in confined areas. Ovens used for curing should contain a fresh air purge to prevent vapours from accumulating and creating a possible explosive mixture. Where the product is used in a hazardous classified area, use explosion-proof electrical/ventilating/lighting/equipment.

Exposure Guidelines

OSHA Permissible Exposure Limits (PEL's)

Ingredient Name CAS-No.	Approx. Weight %	TWA (final)	Ceilings limits (final)	Skin designations
ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2	10 - 15	240 mg/m ³ TWA 50 ppm TWA		prevent or reduce skin absorption
N-BUTYL ALCOHOL 71-36-3	1 - 5	100 ppm TWA 300 mg/m ³ TWA		
NAPHTHALENE 91-20-3	1 - 5	10 ppm TWA 50 mg/m ³ TWA		
FORMALDEHYDE 50-00-0	1 - 1	0.75 ppm TWA		

ACGIH Threshold Limit Value (TLV's)

Ingredient Name CAS-No.	Approx. Weight %	TWA	STEL	Ceiling limits	Skin designations
ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2	10 - 15	20 ppm TWA			

Ingredient Name CAS-No.	Approx. Weight %	TWA	STEL	Ceiling limits	Skin designations
N-BUTYL ALCOHOL 71-36-3	1 - 5	20 ppm TWA			
NAPHTHALENE 91-20-3	1 - 5	10 ppm TWA	15 ppm STEL		CAN BE ABSORBED THROUGH THE SKIN
FORMALDEHYDE 50-00-0	1 - 1			0.3 ppm Ceiling	

9. PHYSICAL PROPERTIES

Odor:	Normal for this product type.
Physical State:	liquid
pH:	not determined
Vapor pressure:	1 mmHg @ 77°F (25°C)
Vapor density (air = 1.0):	4.7
Boiling point:	243.86°F (118°C)
Solubility in water:	not determined
Coefficient of water/oil distribution:	not determined
Density (lbs per US gallon):	8.22
Specific Gravity:	1
Evaporation rate (butyl acetate = 1.0):	0.5
Flash point (Fahrenheit):	117
Flash point (Celsius):	47
Lower explosive limit (%):	1
Upper explosive limit (%):	11
Autoignition temperature:	not determined

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	Heat.
Incompatibility:	Strong oxidizing agents
Hazardous Polymerization:	None anticipated.
Hazardous Decomposition Products:	Carbon monoxide and carbon dioxide. Ammonia compounds. Nitrogen compounds.

Sensitivity to static discharge:	Can be sensitive to static discharge hazards. Please see bonding and grounding information in Section 7.
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11. TOXICOLOGICAL INFORMATION

Ingredient Name CAS-No.	Approx. Weight %	NIOSH - Selected LD50s and LC50s
AROMATIC NAPHTHA, HEAVY 64742-94-5	30 - 35	> 2000 mg/kg Dermal LD50 Rabbit > 5000 mg/kg Oral LD50 Rat > 590 mg/m ³ Inhalation LC50 Rat 4 h
ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2	10 - 15	= 2.21 mg/L Inhalation LC50 Rat 4 h = 220 mg/kg Dermal LD50 Rabbit = 2270 mg/kg Dermal LD50 Rat = 450 ppm Inhalation LC50 Rat 4 h = 470 mg/kg Oral LD50 Rat

11. TOXICOLOGICAL INFORMATION

N-BUTYL ALCOHOL 71-36-3	1 - 5	= 3400 mg/kg Dermal LD50 Rabbit = 790 mg/kg Oral LD50 Rat = 8000 ppm Inhalation LC50 Rat 4 h > 17.7 mg/L Inhalation LC50 Rat 4 h
NAPHTHALENE 91-20-3	1 - 5	= 490 mg/kg Oral LD50 Rat > 20 g/kg Dermal LD50 Rabbit > 2500 mg/kg Dermal LD50 Rat > 340 mg/m ³ Inhalation LC50 Rat 1 h
FORMALDEHYDE 50-00-0	1 - 1	= 0.578 mg/L Inhalation LC50 Rat 4 h = 500 mg/kg Oral LD50 Rat

Mutagens/Teratogens/Carcinogens:

Possible mutagen

Cancer hazard. Contains material which can cause cancer. Possible cancer hazard. Contains material which may cause cancer based on animal data.

Ingredient Name CAS-No.	Approx. Weight %	California Prop 65 - Reproductive (Female)	California Prop 65 - Carcinogen
NAPHTHALENE 91-20-3	1 - 5		Listed. initial date 4/19/02 - carcinogen
FORMALDEHYDE 50-00-0	1 - 1		Listed. initial date 1/1/88 - carcinogen

Ingredient Name CAS-No.	Approx. Weight %	IARC Group 1 - Human Evidence	IARC Group 2A - Limited Human Data	IARC Group 2B - Sufficient Animal Data
NAPHTHALENE 91-20-3	1 - 5			Monograph 82 [2002]
FORMALDEHYDE 50-00-0	1 - 1	Supplement 7 [1987] Monograph 62 [1995] Supplement 7 [1987]		

Ingredient Name CAS-No.	Approx. Weight %	NTP Known Carcinogens	NTP Suspect Carcinogens	NTP Evidence of Carcinogenicity
ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2	10 - 15			male rat-no evidence; female rat-equivocal evidence; male mice- some evidence; female mice-some evidence
NAPHTHALENE 91-20-3	1 - 5		Reasonably Anticipated To Be A Human Carcinogen	male rat-clear evidence; female rat-clear evidence; male mice-no evidence; female mice- some evidence
FORMALDEHYDE 50-00-0	1 - 1		Reasonably Anticipated To Be A Human Carcinogen	

Ingredient Name CAS-No.	Approx. Weight %	OSHA - Hazard Communication Carcinogens	OSHA - Specifically Regulated Carcinogens	ACGIH Carcinogens
ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2	10 - 15			A3 Confirmed Animal Carcinogen with Unknown Relevance to Humans

Ingredient Name CAS-No.	Approx. Weight %	OSHA - Hazard Communication Carcinogens	OSHA - Specifically Regulated Carcinogens	ACGIH Carcinogens
NAPHTHALENE 91-20-3	1 - 5	Present		
FORMALDEHYDE 50-00-0	1 - 1	Present	Irritant and potential cancer hazard - see 29 CFR 1910.1048	A2 Suspected Human Carcinogen

12. ECOLOGICAL DATA

No information on ecology is available.

13. DISPOSAL CONSIDERATIONS

Disposal should be made in accordance with federal, state and local regulations.

14. TRANSPORTATION INFORMATION

U.S. Department of Transportation

UN ID Number (msds): UN1263
 Proper Shipping Name: PAINT
 Hazard Class: COMBUSTIBLE LIQUID
 Packing Group: III

U.S Hazmat and/or International DG shipment exceptions

The supplier may apply one of the following exceptions: Combustible Liquid, Consumer Commodity, Limited Quantity, Viscous Liquid, Does Not Sustain Combustion, or others, as allowed under 49CFR Hazmat Regulations. Please consult 49CFR Subchapter C to ensure that subsequent shipments comply with these exceptions.

Reportable Quantity Description:

International Air Transport Association (IATA):

UN ID Number (msds): UN1263
 Proper Shipping Name: Paint
 Hazard Class: 3
 Packing Group: III

International Maritime Organization (IMO):

IMO UN/ID Number (msds): UN1263
 Proper Shipping Name: PAINT
 Hazard Class: 3
 Packing Group: III
 Marine Pollutant: YES
 Marine Pollutant Ingredient 1: NAPHTHALENE
 Marine Pollutant Ingredient 2: AROMATIC NAPHTHA, HEAVY

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

Ingredient Name CAS-No.	Approx. Weight %	SARA 302	SARA 313	CERCLA RQ in lbs.
ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2	10 - 15		YES	

15. REGULATORY INFORMATION

N-BUTYL ALCOHOL 71-36-3	1 - 5		form R reporting required for 1.0% de minimis concentration	5000
NAPHTHALENE 91-20-3	1 - 5		form R reporting required for 1.0% de minimis concentration	100
FORMALDEHYDE 50-00-0	1 - 1	EPCRA RQ = 100 lb	form R reporting required for 0.1% de minimis concentration	100

SARA 311/312 Hazard Class:

Acute: yes
Chronic: yes
Flammability: yes
Reactivity: no
Sudden Pressure: no

U.S. STATE REGULATIONS:

Right to Know:

The specific chemical identity of a component may be withheld as a trade secret under 34 Pennsylvania Code, Chapter 317.

Pennsylvania Right To Know:

ETHYLENE GLYCOL MONOBUTYL ETHER	111-76-2
FORMALDEHYDE	50-00-0
AROMATIC NAPHTHA, HEAVY	64742-94-5
N-BUTYL ALCOHOL	71-36-3
NAPHTHALENE	91-20-3

Additional Non-Hazardous Materials

PROPRIETARY RESIN	Trade Secret
PROPRIETARY RESIN	Trade Secret
PROPRIETARY RESIN	Trade Secret

California Proposition 65:

WARNING: This product contains chemicals known to the State of California to cause cancer.

Rule 66 status of product

Photochemically reactive.

INTERNATIONAL REGULATIONS - Chemical Inventories

US TSCA Inventory:

All components of this product are in compliance with U.S. TSCA Chemical Substance Inventory Requirements.

Canada Domestic Substances List:

All components of this product are listed on the Domestic Substances List.

16. OTHER INFORMATION

HMIS Codes

Health:	2*
Flammability:	2
Reactivity:	1
PPE:	X - See Section 8 for Personal Protective Equipment (PPE).

Abbreviations:

OSHA - Occupational Safety and Health Administration, IARC - International Agency for Research on Cancer, NIOSH - National Institute of Occupational Safety and Health, NTP - National Toxicology Program, ACGIH - American Conference of Governmental Industrial Hygienists, SCAQMD - South Coast Air Quality Management District, TSCA - Toxic Substances Control Act, IATA - International Air Transport Association, IMO - International Maritime Organization, DOT - Department of Transportation, NA - Not applicable, NOT ESTAB - Not established, N.A.V. - Not available, RQ - Reportable quantity, WT - Weight, MG/CU M - Milligrams per cubic meter, G/L - Grams per liter, MM - Millimeters, MPPCF - Millions of particles per cubic foot, PPM - parts per million, PPT - parts per thousand, TCC/PM - Tag closed cup / Pensky-Martens, PB - Lead, PEL - Permissible exposure level, TWA - Time Weighted Average, STEL - Short term exposure limit, C - Celsius, F - Fahrenheit.

Disclaimer:

The data on this sheet represent typical values. Since application variables are a major factor in product performance, this information should serve only as a general guide. Valspar assumes no obligation or liability for use of this information. UNLESS VALSPAR AGREES OTHERWISE IN WRITING, VALSPAR MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AND DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR FREEDOM FROM PATENT INFRINGEMENT. VALSPAR WILL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES. Your only remedy for any defect in this product is the replacement of the defective product, or a refund of its purchase price, at our option. This MSDS contains additional information required by the state of Pennsylvania.

Preparation Information:

Prepared By:	Regulatory Affairs Department
Print date:	28/Nov/2012
Revision Date:	11/May/2012

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Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product ID: 31S44ME
Product Name: GOLD POLYESTER EXTERIOR
Product Use: Paint product.
Print date: 17/Sep/2014
Revision Date: 17/Sep/2014

Company Identification

The Valspar Corporation - Packaging Division
2001 Tracy St.
Pittsburgh, PA 15233

Manufacturer's Phone: 1-412-766-9300

24-Hour Medical Emergency Phone: 1-888-345-5732

2. HAZARDS IDENTIFICATION

Primary Routes of Exposure:

Inhalation
Ingestion
Skin absorption

Eye Contact:

- Moderate eye irritation
- Risk of serious damage to eyes.

Skin Contact:

- Causes skin irritation.
- Dermatitis
- May cause defatting of the skin.
- Harmful if absorbed through skin.
- Can be absorbed through skin.
- May cause sensitization by skin contact.

Ingestion:

- Irritation of the mouth, throat, and stomach.
- Harmful if swallowed.
- Aspiration hazard if swallowed - can enter lungs and cause damage.

Inhalation:

- Causes respiratory tract irritation.
- Harmful by inhalation.
- May cause damage to nasal and respiratory passages.
- May cause bronchopneumonia or bronchitis.
- May cause sensitization by inhalation.
- May cause pulmonary edema.
- May cause chemical pneumonia.

Target Organ and Other Health Effects:

- Causes headache, drowsiness or other effects to the central nervous system.
- Risk of serious damage to the lungs (by inhalation).
- Liver injury may occur.
- Kidney injury may occur.
- Blood disorders
- Unconsciousness

This product contains ingredients that may contribute to the following potential chronic health effects:

- Notice: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.
- Possible sensitization.
- Contains formaldehyde which is considered a potential carcinogen by the Occupational Health and Safety Administration.

Carcinogens:

- Possible cancer hazard. Contains material which may cause cancer based on animal data.
- Cancer hazard. Contains material which can cause cancer.

3. COMPOSITION / INFORMATION ON HAZARDOUS INGREDIENTS

Ingredient Name CAS-No.	Approx. Weight %	Chemical Name
PROPYLENEGLYCOL MONOMETHYL ETHER ACETATE 108-65-6	15 - 20	2-methoxy-1-methylethyl acetate
AROMATIC NAPHTHA, HEAVY 64742-94-5	10 - 15	Solvent naphtha, petroleum, heavy arom.
AROMATIC NAPHTHA, LIGHT 64742-95-6	10 - 15	Petroleum naphtha, light aromatic
1,2,4-TRIMETHYLBENZENE 95-63-6	5 - 10	1,2,4-Trimethylbenzene
METHYL ISOBUTYL KETONE 108-10-1	1 - 5	Methylisobutyl ketone

3. COMPOSITION / INFORMATION ON HAZARDOUS INGREDIENTS

ETHYLENE GLYCOL DIACETATE 111-55-7	1 - 5	1,2-Ethanediol, 1,2-diacetate
PROPYLENE GLYCOL MONO METHYL ETHER 107-98-2	1 - 5	Propylene glycol monomethyl ether
NAPHTHALENE 91-20-3	1 - 5	Naphthalene
XYLENE 1330-20-7	1 - 5	Xylenes (o-, m-, p- isomers)
CUMENE 98-82-8	.1 - 1	Cumene
ETHYLBENZENE 100-41-4	.1 - 1	Ethyl benzene
FORMALDEHYDE 50-00-0	0 - .099	Formaldehyde

If this section is blank there are no hazardous components per OSHA guidelines.

4. FIRST AID MEASURES

Eye Contact:

Remove any contact lenses and open eyes wide apart. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If medical assistance is not immediately available, flush an additional 15 minutes. Get medical attention immediately.

Skin Contact:

Remove contaminated clothing and shoes. Wash off immediately with plenty of water for at least 15 minutes. Get medical attention, if symptoms develop or persist.

Ingestion:

Rinse mouth with water. Give one or two glasses of water. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. If vomiting occurs, keep head lower than hips to prevent aspiration. Get medical attention immediately.

Inhalation:

Move injured person into fresh air and keep person calm under observation. Get medical attention immediately. For breathing difficulties, oxygen may be necessary. If breathing stops, provide artificial respiration. Place unconscious person on the side in the recovery position and ensure breathing.

Medical conditions aggravated by exposure:

Any respiratory or skin condition.

5. FIRE FIGHTING MEASURES

Flash point (Fahrenheit):	100
Flash point (Celsius):	38
Lower explosive limit (%):	1
Upper explosive limit (%):	13
Autoignition temperature:	not determined
Sensitivity to impact:	no
Sensitivity to static discharge:	Can be sensitive to static discharge hazards. Please see bonding and grounding information in Section 7.
Hazardous combustion products:	See Section 10.

Unusual fire and explosion hazards:

None known.

Extinguishing media:

Carbon dioxide, dry chemical, foam and/or water fog.

Fire fighting procedures:

Firefighters should be equipped with self-contained breathing apparatus and turn out gear. Keep containers and surroundings cool with water spray.

6. ACCIDENTAL RELEASE MEASURES

Action to be taken if material is released or spilled:

Ventilate the area. Avoid breathing dust or vapor. Use self-containing breathing apparatus or airmask for large spills in a confined area. Wipe, scrape or soak up in an inert material and put in a container for disposal. See section 7, "Handling and Storage", for proper container and storage procedures. Remove all sources of ignition. Soak up with inert absorbent material. Use only non-sparking tools. Avoid contact with eyes.

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage:

Keep away from heat, sparks and open flame. - No smoking. Keep container closed when not in use. Do not store above 120 degrees F. (49 degrees C). Based on flash point and vapor pressure, suitable storage should be provided in accordance with OSHA regulation 1910.106, Ontario OH&S regulation 851 section 22. Empty containers may contain product residue, including flammable or explosive vapors. Do not cut, puncture or weld on or near container. All label warnings must be observed until the container has been commercially cleaned or reconditioned. If the product is used near or above the flashpoint, an ignition hazard may be present. Activities, uses, or operations which liberate vapor (such as mixing or free fall of liquids) may also present an ignition hazard. Please ensure containers and other interconnected equipment are properly bonded and grounded at all times.

8. PERSONAL PROTECTIVE EQUIPMENT AND EXPOSURE CONTROLS

Personal Protective Equipment**Eye and face protection:**

Wear chemical goggles with splash shields or face shield. Contact lenses should not be worn when working with chemicals because contact lenses may contribute to the severity of an eye injury in case of exposure.

Skin protection:

Appropriate chemical resistant gloves should be worn.

Other Personnel Protection Data:

To prevent skin contact wear protective clothing covering all exposed areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Respiratory protection:

If exposure cannot be controlled below applicable limits, use the appropriate NIOSH approved respirator such as an air purifying respirator with organic vapor cartridge and dust/mist filter. Consult the respirator manufacturer's literature to ensure that the respirator will provide adequate protection. Read and follow all respirator manufacturer's instructions.

Ventilation

Use only in well-ventilated areas. Ensure adequate ventilation, especially in confined areas. Ovens used for curing should contain a fresh air purge to prevent vapours from accumulating and creating a possible explosive mixture. Where the product is used in a hazardous classified area, use explosion-proof electrical/ventilating/lighting/equipment.

Exposure Guidelines**OSHA Permissible Exposure Limits (PEL's)**

Ingredient Name CAS-No.	Approx. Weight %	TWA (final)	Ceilings limits (final)	Skin designations
METHYL ISOBUTYL KETONE 108-10-1	1 - 5	100 ppm TWA 410 mg/m ³ TWA		
NAPHTHALENE 91-20-3	1 - 5	10 ppm TWA 50 mg/m ³ TWA		
XYLENE 1330-20-7	1 - 5	100 ppm TWA 435 mg/m ³ TWA		
CUMENE 98-82-8	.1 - 1	245 mg/m ³ TWA 50 ppm TWA		prevent or reduce skin absorption
ETHYLBENZENE 100-41-4	.1 - 1	100 ppm TWA 435 mg/m ³ TWA		
FORMALDEHYDE 50-00-0	0 - .099	0.75 ppm TWA		

ACGIH Threshold Limit Value (TLV's)

Ingredient Name CAS-No.	Approx. Weight %	TWA	STEL	Ceiling limits	Skin designations
1,2,4-TRIMETHYLBENZENE 95-63-6	5 - 10	25 PPM			
METHYL ISOBUTYL KETONE 108-10-1	1 - 5	20 ppm TWA	75 ppm STEL		
PROPYLENE GLYCOL MONO METHYL ETHER 107-98-2	1 - 5	100 ppm TWA	150 ppm STEL		
NAPHTHALENE 91-20-3	1 - 5	10 ppm TWA	15 ppm STEL		CAN BE ABSORBED THROUGH THE SKIN
XYLENE 1330-20-7	1 - 5	100 ppm TWA	150 ppm STEL		
CUMENE 98-82-8	.1 - 1	50 ppm TWA			
ETHYLBENZENE 100-41-4	.1 - 1	100 ppm TWA	125 ppm STEL		
FORMALDEHYDE 50-00-0	0 - .099			0.3 ppm Ceiling	

9. PHYSICAL PROPERTIES

Odor:	Normal for this product type.
Physical State:	liquid
pH:	not determined
Vapor pressure:	15.037594 mmHg @ 68°F (20°C)
Vapor density (air = 1.0):	5.04
Boiling point:	237.2°F (114°C)
Solubility in water:	not determined
Coefficient of water/oil distribution:	not determined
Density (lbs per US gallon):	8.35
Specific Gravity:	1
Evaporation rate (butyl acetate = 1.0):	1.6
Flash point (Fahrenheit):	100

9. PHYSICAL PROPERTIES

Flash point (Celsius):	38
Lower explosive limit (%):	1
Upper explosive limit (%):	13
Autoignition temperature:	not determined

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	Heat.
Incompatibility:	Strong oxidizing agents
Hazardous Polymerization:	None anticipated.
Hazardous Decomposition Products:	Carbon monoxide and carbon dioxide. Nitrogen compounds. formaldehyde

Sensitivity to static discharge: Can be sensitive to static discharge hazards. Please see bonding and grounding information in Section 7.

11. TOXICOLOGICAL INFORMATION

Ingredient Name CAS-No.	Approx. Weight %	NIOSH - Selected LD50s and LC50s
PROPYLENEGLYCOL MONOMETHYL ETHER ACETATE 108-65-6	15 - 20	= 8532 mg/kg Oral LD50 Rat > 5000 mg/kg Dermal LD50 Rabbit
AROMATIC NAPHTHA, HEAVY 64742-94-5	10 - 15	> 2000 mg/kg Dermal LD50 Rabbit > 5000 mg/kg Oral LD50 Rat > 590 mg/m ³ Inhalation LC50 Rat 4 h
AROMATIC NAPHTHA, LIGHT 64742-95-6	10 - 15	= 3400 ppm Inhalation LC50 Rat 4 h = 8400 mg/kg Oral LD50 Rat > 2000 mg/kg Dermal LD50 Rabbit > 5.2 mg/L Inhalation LC50 Rat 4 h
1,2,4-TRIMETHYLBENZENE 95-63-6	5 - 10	= 18 g/m ³ Inhalation LC50 Rat 4 h = 3400 mg/kg Oral LD50 Rat > 3160 mg/kg Dermal LD50 Rabbit
METHYL ISOBUTYL KETONE 108-10-1	1 - 5	= 2080 mg/kg Oral LD50 Rat = 8.2 mg/L Inhalation LC50 Rat 4 h > 16000 mg/kg Dermal LD50 Rabbit
ETHYLENE GLYCOL DIACETATE 111-55-7	1 - 5	= 8480 µL/kg Dermal LD50 Rabbit = 6850 mg/kg Oral LD50 Rat
PROPYLENE GLYCOL MONO METHYL ETHER 107-98-2	1 - 5	= 13000 mg/kg Dermal LD50 Rabbit = 5200 mg/kg Oral LD50 Rat = 54.6 mg/L Inhalation LC50 Rat 4 h > 24 mg/L Inhalation LC50 Rat 1 h
NAPHTHALENE 91-20-3	1 - 5	= 490 mg/kg Oral LD50 Rat > 20 g/kg Dermal LD50 Rabbit > 2500 mg/kg Dermal LD50 Rat > 340 mg/m ³ Inhalation LC50 Rat 1 h
XYLENE 1330-20-7	1 - 5	= 4300 mg/kg Oral LD50 Rat = 47635 mg/L Inhalation LC50 Rat 4 h = 5000 ppm Inhalation LC50 Rat 4 h > 1700 mg/kg Dermal LD50 Rabbit
CUMENE 98-82-8	1 - 1	= 1400 mg/kg Oral LD50 Rat = 39000 mg/m ³ Inhalation LC50 Rat 4 h > 3160 mg/kg Dermal LD50 Rabbit

11. TOXICOLOGICAL INFORMATION

ETHYLBENZENE 100-41-4	.1 - 1	= 15354 mg/kg Dermal LD50 Rabbit = 17.2 mg/L Inhalation LC50 Rat 4 h = 3500 mg/kg Oral LD50 Rat
FORMALDEHYDE 50-00-0	0 - .099	= 0.578 mg/L Inhalation LC50 Rat 4 h = 500 mg/kg Oral LD50 Rat

Mutagens/Teratogens/Carcinogens:

Possible mutagen

Possible cancer hazard. Contains material which may cause cancer based on animal data. Cancer hazard. Contains material which can cause cancer.

Contains ethylbenzene, which has been determined by NTP to be an animal carcinogen with no known relevance to humans. IARC has classified ethylbenzene as possibly carcinogenic to humans (2b) on the basis of sufficient evidence of carcinogenicity in laboratory animals but inadequate evidence of cancer in humans.

Ingredient Name CAS-No.	Approx. Weight %	California Prop 65 - Developmental Toxicity	California Prop 65 - Reproductive (Male)
METHYL ISOBUTYL KETONE 108-10-1	1 - 5	Listed. Initial date 03/28/14 - developmental toxicity	

Ingredient Name CAS-No.	Approx. Weight %	California Prop 65 - Reproductive (Female)	California Prop 65 - Carcinogen
METHYL ISOBUTYL KETONE 108-10-1	1 - 5		carcinogen, initial date 11/04/11
NAPHTHALENE 91-20-3	1 - 5		Listed. initial date 4/19/02 - carcinogen
CUMENE 98-82-8	.1 - 1		carcinogen, initial date 4/6/10
ETHYLBENZENE 100-41-4	.1 - 1		Listed. initial date 6/11/04 - carcinogen
FORMALDEHYDE 50-00-0	0 - .099		Listed. initial date 1/1/88 - carcinogen

Ingredient Name CAS-No.	Approx. Weight %	IARC Group 1 - Human Evidence	IARC Group 2A - Limited Human Data	IARC Group 2B - Sufficient Animal Data
METHYL ISOBUTYL KETONE 108-10-1	1 - 5			Monograph 101 [in preparation]
NAPHTHALENE 91-20-3	1 - 5			Monograph 82 [2002]
CUMENE 98-82-8	.1 - 1			Monograph 101 [in preparation]
ETHYLBENZENE 100-41-4	.1 - 1			Monograph 77 [2000]
FORMALDEHYDE 50-00-0	0 - .099	Supplement 7 [1987] Monograph 62 [1995] Supplement 7 [1987]		

Ingredient Name CAS-No.	Approx. Weight %	NTP Known Carcinogens	NTP Suspect Carcinogens
NAPHTHALENE 91-20-3	1 - 5		Reasonably Anticipated To Be A Human Carcinogen

Ingredient Name CAS-No.	Approx. Weight %	NTP Known Carcinogens	NTP Suspect Carcinogens
FORMALDEHYDE 50-00-0	0 - .099		Reasonably Anticipated To Be A Human Carcinogen

Ingredient Name CAS-No.	Approx. Weight %	OSHA - Hazard Communication Carcinogens	OSHA - Specifically Regulated Carcinogens	ACGIH Carcinogens
METHYL ISOBUTYL KETONE 108-10-1	1 - 5			A3 Confirmed Animal Carcinogen with Unknown Relevance to Humans
NAPHTHALENE 91-20-3	1 - 5	Present		
ETHYLBENZENE 100-41-4	.1 - 1	Present		A3 Confirmed Animal Carcinogen with Unknown Relevance to Humans
FORMALDEHYDE 50-00-0	0 - .099	Present	Irritant and potential cancer hazard - see 29 CFR 1910.1048	A2 Suspected Human Carcinogen

12. ECOLOGICAL DATA

No information on ecology is available.

13. DISPOSAL CONSIDERATIONS

Disposal should be made in accordance with federal, state and local regulations.

14. TRANSPORTATION INFORMATION

U.S. Department of Transportation

UN ID Number (msds):	UN1263
Proper Shipping Name:	PAINT
Hazard Class:	COMBUSTIBLE LIQUID
Packing Group:	III

U.S Hazmat and/or International DG shipment exceptions

The supplier may apply one of the following exceptions: Combustible Liquid, Consumer Commodity, Limited Quantity, Viscous Liquid, Does Not Sustain Combustion, or others, as allowed under 49CFR Hazmat Regulations. Please consult 49CFR Subchapter C to ensure that subsequent shipments comply with these exceptions.

Reportable Quantity Description:

International Air Transport Association (IATA):

UN/ID No:	UN1263
Proper shipping name:	Paint
Hazard Class:	3
Packing Group:	III

International Maritime Organization (IMO):

UN/ID No:	UN1263
Proper shipping name:	PAINT
Hazard Class:	3
Packing Group:	III
Marine Pollutant	YES

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

Ingredient Name CAS-No.	Approx. Weight %	SARA 302	SARA 313	CERCLA RQ in lbs.
1,2,4-TRIMETHYLBENZENE 95-63-6	5 - 10		Listed.	
METHYL ISOBUTYL KETONE 108-10-1	1 - 5		form R reporting required for 1.0% de minimis concentration	5000
NAPHTHALENE 91-20-3	1 - 5		form R reporting required for 1.0% de minimis concentration	100
XYLENE 1330-20-7	1 - 5		form R reporting required for 1.0% de minimis concentration	100
CUMENE 98-82-8	.1 - 1		form R reporting required for 1.0% de minimis concentration	5000
ETHYLBENZENE 100-41-4	.1 - 1		form R reporting required for 1.0% de minimis concentration	1000
FORMALDEHYDE 50-00-0	0 - .099	EPCRA RQ = 100 lb	form R reporting required for 0.1% de minimis concentration	100

SARA 311/312 Hazard Class:

Acute: yes
Chronic: yes
Flammability: yes
Reactivity: no
Sudden Pressure: no

U.S. STATE REGULATIONS:

Right to Know:

The specific chemical identity of a component may be withheld as a trade secret under 34 Pennsylvania Code, Chapter 317.

Pennsylvania Right To Know:

PROPYLENEGLYCOL MONOMETHYL ETHER ACETATE	108-65-6
PROPYLENE GLYCOL MONO METHYL ETHER	107-98-2
XYLENE	1330-20-7
AROMATIC NAPHTHA, LIGHT	64742-95-6
1,2,4-TRIMETHYLBENZENE	95-63-6
ETHYLENE GLYCOL DIACETATE	111-55-7
AROMATIC NAPHTHA, HEAVY	64742-94-5
NAPHTHALENE	91-20-3
FORMALDEHYDE	50-00-0
METHYL ISOBUTYL KETONE	108-10-1

Additional Non-Hazardous Materials

PROPRIETARY RESIN	Trade Secret
PROPRIETARY RESIN	Trade Secret
PROPRIETARY RESIN	Trade Secret

California Proposition 65:

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Rule 66 status of product

Photochemically reactive.

INTERNATIONAL REGULATIONS - Chemical Inventories

US TSCA Inventory:

All components of this product are in compliance with U.S. TSCA Chemical Substance Inventory Requirements.

Canada Domestic Substances List:

Not all components in this product are listed on the Domestic Substances List.

16. OTHER INFORMATION

HMIS Codes

Health:	2*
Flammability:	2
Reactivity:	1
PPE:	X - See Section 8 for Personal Protective Equipment (PPE).

Abbreviations:

OSHA - Occupational Safety and Health Administration, IARC - International Agency for Research on Cancer, NIOSH - National Institute of Occupational Safety and Health, NTP - National Toxicology Program, ACGIH - American Conference of Governmental Industrial Hygienists, SCAQMD - South Coast Air Quality Management District, TSCA - Toxic Substances Control Act, IATA - International Air Transport Association, IMO - International Maritime Organization, DOT - Department of Transportation, NA - Not applicable, NOT ESTAB - Not established, N.A.V. - Not available, RQ - Reportable quantity, WT - Weight, MG/CU M - Milligrams per cubic meter, G/L - Grams per liter, MM - Millimeters, MPPCF - Millions of particles per cubic foot, PPM - parts per million, PPT - parts per thousand, TCC/PM - Tag closed cup / Pensky-Martens, PB - Lead, PEL - Permissible exposure level, TWA - Time Weighted Average, STEL - Short term exposure limit, C - Celsius, F - Fahrenheit.

Disclaimer:

The data on this sheet represent typical values. Since application variables are a major factor in product performance, this information should serve only as a general guide. Valspar assumes no obligation or liability for use of this information. UNLESS VALSPAR AGREES OTHERWISE IN WRITING, VALSPAR MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AND DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR FREEDOM FROM PATENT INFRINGEMENT. VALSPAR WILL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES. Your only remedy for any defect in this product is the replacement of the defective product, or a refund of its purchase price, at our option. This MSDS contains additional information required by the state of Pennsylvania.

Preparation Information:

Prepared By:	Regulatory Affairs Department
Print date:	17/Sep/2014
Revision Date:	17/Sep/2014



SAFETY DATA SHEET

Revision date 30-May-2015

Version 3

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Code 31S46AH

Product Name VALPURE (TM) V3146 GOLD ENAMEL

Other means of identification

No information available

Recommended use of the chemical and restrictions on use

Paint, Coatings

Details of the supplier of the safety data sheet

See section 16 for more information

The Valspar Corporation
PO Box 1461
Minneapolis, MN 55440

E-mail address msds@valspar.com

Emergency telephone number

United States of America 1-888-345-5732

American Samoa, Guam, Northern Mariana Islands, Puerto Rico, U.S. Virgin Islands 1-800-255-3924

Section 2: HAZARDS IDENTIFICATION

Classification

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Carcinogenicity	Category 2
Reproductive toxicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 2
Aspiration toxicity	Category 1
Flammable liquids	Category 3

Label elements

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Signal word

DANGER

HAZARD STATEMENTS

Flammable liquid and vapor
Causes skin irritation
Causes serious eye irritation
Suspected of causing cancer
Suspected of damaging fertility or the unborn child
May cause damage to organs through prolonged or repeated exposure
May be fatal if swallowed and enters airways

PREVENTION

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Wash face, hands and any exposed skin thoroughly after handling. Do not breathe dust/fume/gas/mist/vapors/spray. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ ventilating/ lighting/ equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

RESPONSE

IF exposed or concerned: Get medical advice/attention.

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin

If skin irritation occurs: Get medical advice/attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. Wash contaminated clothing before reuse.

Inhalation

IF INHALED: Call a POISON CENTER or doctor if you feel unwell.

Ingestion

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.

Fire

In case of fire: Use CO₂, dry chemical, or foam for extinction.

STORAGE

Store locked up. Store in a well-ventilated place. Keep cool.

DISPOSAL

Dispose of contents/containers in accordance with local regulations.

HAZARDS NOT OTHERWISE CLASSIFIED (HNOC)

Not applicable.

OTHER HAZARDS

Harmful to aquatic life with long lasting effects.

UNKNOWN ACUTE TOXICITY

0% of the mixture consists of ingredient(s) of unknown toxicity.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	weight-%
Cyclohexanone	108-94-1	10 - 25
Solvent naphtha, petroleum, heavy aromatic	64742-94-5	10 - 25
Xylenes	1330-20-7	5 - 10
Dimethyl succinate	106-65-0	1 - 3

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1-Butanol	71-36-3	1 - 3
Naphthalene	91-20-3	1 - 3
Ethylbenzene	100-41-4	1 - 3
Toluene	108-88-3	0.1 - 0.3
Formaldehyde	50-00-0	100 ppm - <0.1%

*The exact percentage (concentration) of composition has been withheld as a trade secret.

Section 4: FIRST AID MEASURES

First Aid Measures

General advice

IF exposed or concerned: Get medical advice/attention.

Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin Contact

If skin irritation occurs: Get medical advice/attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. Wash contaminated clothing before reuse.

Inhalation

IF INHALED: Call a POISON CENTER or doctor if you feel unwell.

Ingestion

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed

Symptoms

No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians

Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

Suitable extinguishing media

Dry chemical, CO₂, water spray or alcohol-resistant foam.

Not to be used for safety reasons: Strong water jet

Specific hazards arising from the chemical

Burning produces heavy smoke. Fire may produce irritating and/or toxic gases. In the event of fire and/or explosion do not breathe fumes.

Special protective equipment for fire-fighters

Wear self-contained breathing apparatus and protective suit. Cool containers with flooding quantities of water until well after fire is out. Do not allow run-off from fire-fighting to enter drains or water courses.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions

Avoid breathing vapors or mists. Remove all sources of ignition. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. Take precautionary measures against static discharges.

For emergency responders

Use personal protection recommended in Section 8.

Environmental precautions

Do not allow into any sewer, on the ground or into any body of water. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations. Prevent further leakage or spillage if safe to do so. Local authorities should be advised if significant spillages cannot be contained.

Methods and material for containment and cleaning up

Methods for containment

Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Dispose of waste product or used containers according to local regulations. Clean with detergents. Avoid solvent cleaners. Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly.

Section 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Prevent the creation of flammable or explosive concentrations of vapor in air and avoid vapor concentration higher than the occupational exposure limits. Operators should wear anti-static footwear and clothing and floors should be of the conducting type. Use personal protection recommended in Section 8. Never use pressure to empty container. Comply with the health and safety at work laws. Prevent product from entering drains. Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Use only with adequate ventilation. Do not breathe dust/fume/gas/mist/vapors/spray. Use only in well-ventilated areas. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. All equipment used when handling the product must be grounded.

General Hygiene Considerations

When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Avoid contact with skin, eyes or clothing.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep/store only in original container. Store in accordance with local regulations. Keep unauthorized personnel away. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Keep container tightly closed in a dry and well-ventilated place. Keep tightly closed in a dry and cool place.

Incompatible materials

Strong oxidizing agents.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits

If S* appears in the OEL table, it indicates this chemical contains a skin notation.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Cyclohexanone 108-94-1	STEL: 50 ppm TWA: 20 ppm S*	TWA: 50 ppm TWA: 200 mg/m ³	IDLH: 700 ppm TWA: 25 ppm TWA: 100 mg/m ³
Xylenes 1330-20-7	STEL: 150 ppm TWA: 100 ppm	TWA: 100 ppm TWA: 435 mg/m ³	
1-Butanol 71-36-3	TWA: 20 ppm	TWA: 100 ppm TWA: 300 mg/m ³	IDLH: 1400 ppm Ceiling: 50 ppm Ceiling: 150 mg/m ³
Naphthalene 91-20-3	TWA: 10 ppm S*	TWA: 10 ppm TWA: 50 mg/m ³	IDLH: 250 ppm TWA: 10 ppm TWA: 50 mg/m ³ STEL: 15 ppm STEL: 75 mg/m ³

Ethylbenzene 100-41-4	TWA: 20 ppm	TWA: 100 ppm TWA: 435 mg/m ³	IDLH: 800 ppm TWA: 100 ppm TWA: 435 mg/m ³ STEL: 125 ppm STEL: 545 mg/m ³
Toluene 108-88-3	TWA: 20 ppm	TWA: 200 ppm Ceiling: 300 ppm	IDLH: 500 ppm TWA: 100 ppm TWA: 375 mg/m ³ STEL: 150 ppm STEL: 560 mg/m ³
Formaldehyde 50-00-0	Ceiling: 0.3 ppm	TWA: 0.75 ppm STEL: 2 ppm see 29 CFR 1910.1048	IDLH: 20 ppm Ceiling: 0.1 ppm 15 min TWA: 0.016 ppm

Appropriate engineering controls

Engineering Controls

Ensure adequate ventilation, especially in confined areas. Provide local exhaust ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles).

Skin and body protection

Wear anti-static clothing made of natural fiber or of high temperature resistant synthetic fiber. Wear suitable protective clothing.

Hand Protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed. Gloves should be replaced regularly and if there is any sign of damage to the glove material. Always ensure that gloves are free from defects and that they are stored and used correctly. The performance or effectiveness of the glove may be reduced by physical / chemical damage and poor maintenance. Wear protective gloves.

Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Thermal Protection

No information available

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid
Appearance	No information available
Odor	sweet
Color	Gold
Odor Threshold	No information available
pH value	No information available
Melting point/freezing point	No information available
Boiling point / boiling range	No information available °C / °F
flash point	39 °C / 102 °F
evaporation rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor Pressure	No information available
vapor density	No information available
Density (lbs per US gallon)	8.64
specific gravity	1.03
Solubility(ies)	No information available
Partition coefficient	No information available

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Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	No information available
Dynamic viscosity	No information available

Other information

Section 10: STABILITY AND REACTIVITY

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of Hazardous Reactions	None under normal processing.
Hazardous polymerization	None under normal processing.
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	Strong oxidizing agents.
Hazardous Decomposition Products	Carbon monoxide. Carbon dioxide (CO ₂).

Section 11: TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye contact

Causes serious eye irritation

Skin Contact

Causes skin irritation

Ingestion

May be fatal if swallowed and enters airways

Inhalation

Not applicable

Numerical measures of toxicity - Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Cyclohexanone 108-94-1	= 1544 mg/kg (Rat)	= 947 mg/kg (Rabbit)	= 8000 ppm (Rat) 4 h
Solvent naphtha, petroleum, heavy aromatic 64742-94-5	> 5000 mg/kg (Rat)	> 2 mL/kg (Rabbit)	> 590 mg/m ³ (Rat) 4 h
Xylenes 1330-20-7	= 3500 mg/kg (Rat)	> 4350 mg/kg (Rabbit)	= 29.08 mg/L (Rat) 4 h
Dimethyl succinate 106-65-0	> 5000 mg/kg (Rat)	> 5 g/kg (Rabbit)	-
1-Butanol 71-36-3	= 700 mg/kg (Rat)	= 3402 mg/kg (Rabbit)	> 8000 ppm (Rat) 4 h
Naphthalene 91-20-3	= 1110 mg/kg (Rat)	= 1120 mg/kg (Rabbit)	> 340 mg/m ³ (Rat) 1 h
Ethylbenzene 100-41-4	= 3500 mg/kg (Rat)	= 15400 mg/kg (Rabbit)	= 17.2 mg/L (Rat) 4 h
Toluene 108-88-3	= 2600 mg/kg (Rat)	= 12000 mg/kg (Rabbit)	= 12.5 mg/L (Rat) 4 h
Formaldehyde 50-00-0	= 600 mg/kg (Rat)	= 270 mg/kg (Rabbit)	= 0.578 mg/L (Rat) 4 h

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)	9765 Mg/kg
ATEmix (dermal)	11706 Mg/kg
ATEmix (inhalation-dust/mist)	5.4 mg/l

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ATEmix (inhalation-vapor) 39 mg/l

UNKNOWN ACUTE TOXICITY 0% of the mixture consists of ingredient(s) of unknown toxicity.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chemical Name	ACGIH	IARC	NTP	OSHA
Cyclohexanone 108-94-1	A3			
Naphthalene 91-20-3	A3	Group 2B	Reasonably Anticipated	X
Ethylbenzene 100-41-4	A3	Group 2B		X
Formaldehyde 50-00-0	A2	Group 1	Known	X

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen. A2 - Suspected Human Carcinogen.

IARC (International Agency for Research on Cancer)

Group 2B - Possibly Carcinogenic to Humans. Group 1 - Carcinogenic to Humans.

NTP (National Toxicology Program)

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen. Known - Known Carcinogen.

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present.

Skin corrosion/irritation	Causes skin irritation
Serious eye damage/eye irritation	Causes serious eye irritation
Skin sensitization	Not applicable
Respiratory sensitization	Not applicable
Germ cell mutagenicity	Not applicable
Carcinogenicity	Suspected of causing cancer
Reproductive Toxicity	Suspected of damaging fertility or the unborn child
Specific target organ toxicity (single exposure)	Not applicable
Specific target organ toxicity (repeated exposure)	May cause damage to organs through prolonged or repeated exposure
Aspiration hazard	Not applicable

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life with long lasting effects.

Environmental precautions Prevent product from entering drains.

Marine pollutant This material meets the definition of a marine pollutant

Persistence and degradability

No information available

Bioaccumulation

No information available

Mobility

No information available

Other adverse effects

No information available

Section 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

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Contaminated packaging

Improper disposal or reuse of this container may be dangerous and illegal. Empty containers must be scrapped or reconditioned.

Section 14: TRANSPORT INFORMATION

14.1 UN/ID no	DOT UN1263	IMDG UN1263	IATA UN1263
14.2 Proper shipping name	Paint	Paint	Paint
14.3 Hazard Class	COMBUSTIBLE LIQUID	3	3
14.4 Packing Group	III	III	III
14.5 Environmental hazard Yes			
Marine pollutant	This material meets the definition of a marine pollutant		
Marine pollutant	Solvent naphtha, petroleum, heavy aromatic , Naphthalene		
14.6 Special Provisions	B1, B52, IB3, T2, TP1, TP29	163, 223, 955	A3, A72
	Emergency Response Guide Number 128	EmS-No F-E, S-E	
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available		

Section 15: REGULATORY INFORMATION

International Inventories

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory	All components are listed or exempt from listing
DSL - Canadian Domestic Substances List	Not all components are listed or exempt from listing

US Federal Regulations

A component in this material is subject to the following SNUR under TSCA 5(a)(2):
40 CFR 721.5905

Chemical Name	TSCA - Toxic Substances Control Act, Section 12(b) Export Notification
MODIFIED PHENOLIC RESIN UNKNOWN	Section 5

Chemical Name	SARA 313 - Threshold Values %	Hazardous air pollutants (HAPs) content
Xylenes 1330-20-7 5 - 10	1	Present
1-Butanol 71-36-3 1 - 3	1	
Naphthalene 91-20-3 1 - 3	0.1	Present
Ethylbenzene 100-41-4 1 - 3	0.1	Present
Toluene 108-88-3 0.1 - 0.3	1	Present

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Xylenes 1330-20-7	100 lb			X

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Naphthalene 91-20-3	100 lb	X	X	X
Ethylbenzene 100-41-4	1000 lb	X	X	X
Toluene 108-88-3	1000 lb	X	X	X
Formaldehyde 50-00-0	100 lb			X

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Cyclohexanone 108-94-1	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
Xylenes 1330-20-7	100 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ
1-Butanol 71-36-3	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
Naphthalene 91-20-3	100 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ
Ethylbenzene 100-41-4	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ
Toluene 108-88-3	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ
Formaldehyde 50-00-0	100 lb	100 lb	RQ 100 lb final RQ RQ 45.4 kg final RQ

US State Regulations

Rule 66 status of product

Photochemically reactive.

California Proposition 65

WARNING! This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

U.S. EPA Label information

EPA Pesticide registration number Not applicable

U.S. State Right-to-Know Regulations

Chemical Name
Proprietary Non-Hazardous Ingredient - Proprietary CAS
Cyclohexanone 108-94-1
Solvent naphtha, petroleum, heavy aromatic 64742-94-5
Proprietary Non-Hazardous Ingredient - Proprietary CAS
Proprietary Non-Hazardous Ingredient - Proprietary CAS
Xylenes 1330-20-7
Dimethyl succinate 106-65-0
1-Butanol 71-36-3
Naphthalene 91-20-3
Ethylbenzene 100-41-4
Phenol 108-95-2
Toluene 108-88-3

Product Code 31S46AH

Formaldehyde
50-00-0

Section 16: OTHER INFORMATION

HMIS

Health hazards 3*

* = Chronic Health Hazard

Flammability 2

Physical hazards 0

Personal Protection X

Supplier Address

The Valspar Corporation
2000 Georgetown Drive
Waterfront Office Park,
Building III
Sewickley, PA 15143
724-940-3800

The Valspar Corporation
2001 Tracy St.
Pittsburgh, PA, 15233
412-766-9300

The Valspar Corporation
372 Cleveland St.
Rochester, PA 15074
724-774-8550

Valspar Coatings
90 Carson Rd.
Birmingham, AL 35215
205-854-5454

Valspar Coatings
701 Shiloh Rd.
Garland, TX 75042
972-276-5181

Prepared By Product Stewardship

Revision date 30-May-2015

Revision Note No information available

Disclaimer

The information on this Safety Data Sheet (SDS) is based on the present state of our knowledge, current national legislation and guidelines. As the specific conditions of use of the product are outside the supplier's knowledge and control the user is responsible for ensuring that the requirements of relevant legislation are complied with. This SDS should not be construed as any guarantee of the technical performance or suitability for particular applications. UNLESS SUPPLIER AGREES OTHERWISE IN WRITING, SUPPLIER MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AND DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR FREEDOM FROM PATENT INFRINGEMENT. SUPPLIER WILL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

End of Safety Data Sheet

valspar

PACKAGING

2001 Tracy Street
Pittsburgh, PA 15233
Tel 412-766-9300
Fax 412-766-8953

Volatile Composition Report

(Data based on formulation)

Valspar Code: 31S46AH

CAS Number	Component	Weight Percent	Weight/Gallon	HAP
108-94-1	CYCLOHEXANONE	17.4	7.89	
64742-94-5	AROMATIC NAPHTHA, HEAVY	15.5	7.42	
1119-40-0	DIMETHYL GLUTARATE	8.3	9.04	
1330-20-7	XYLENE	7.0	7.23	✓
106-65-0	DIMETHYL SUCCINATE	2.5	9.04	
627-93-0	DIMETHYL ADIPATE	1.9	9.04	
71-36-3	BUTANOL	1.8	6.75	
91-20-3	NAPHTHALENE	1.8	8.00	✓
100-41-4	BENZENE, ETHYL	1.4	7.25	✓
95-63-6	1,2,4-TRIMETHYLBENZENE	0.7	8.30	
64742-95-6	AROMATIC NAPHTHA, LIGHT	0.6	7.25	
108-88-3	TOLUENE	0.1	7.26	✓
SUM:		59.0		

Lbs HAP per gallon of solids: 2.57**HAP Total Weight%: 10.3**

9/21/2016

Safety Data Sheet
814030
GOLD SIZE



Safety Data Sheet dated 5/10/2015, version 2

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1. Product identifier
Mixture identification:
Trade name: GOLD SIZE
Trade code: 814030
Product type and use: Polyester resins mixed with solvents
- 1.2. Relevant identified uses of the substance or mixture and uses advised against
Recommended use:
Industrial use. Varnishing product for can coating and/or coil coating.
- 1.3. Details of the supplier of the safety data sheet
Supplier:
METLAC Spa - Strada statale 35 Bis dei Giovi, no.53 15062 Bosco Marengo [AL]
METLAC Spa - tel. 0131-291200 (office hours)
Competent person responsible for the safety data sheet:
sds@metlac.com
- 1.4. Emergency telephone number
METLAC Spa - tel. 0131-291200 (office hours)

2. HAZARDS IDENTIFICATION

- 2.1. Classification of the substance or mixture
EC regulation criteria 1272/2008 (CLP):
- ⚠ Warning, Flam. Liq. 3, Flammable liquid and vapour.
 - ⚠ Danger, Eye Dam. 1, Causes serious eye damage.
 - ⚠ Warning, STOT SE 3, May cause respiratory irritation.
 - ⚠ Warning, STOT SE 3, May cause drowsiness or dizziness.
 - ⚠ Aquatic Chronic 2, Toxic to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Symbols:



Danger

Hazard statements:

- H226 Flammable liquid and vapour.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor/...

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P312 Call a POISON CENTER/ doctor/if you feel unwell.

P370+P378 In case of fire: Use ... to extinguish.

Special Provisions:

None

Contents:

Hydrocarbons, C9, aromatics

Hydrocarbons, C10, aromatics <1% naphtalene

butan-1-ol

solvent naphtha (petroleum), light arom. - Note P

Special provisions according to Annex XVII of REACH and subsequent amendments:

Restricted to professional users.

2.3. Other hazards

Other Hazards:

No other hazards

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances


























N.A.

vPvB Substances: None - PBT Substances: None

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Number	Classification
>= 30% - < 40%	Hydrocarbons, C9, aromatics	EC: 918-668-5 REACH No.: 01- 2119455851 -35	⚠ 2.6/3 Flam. Liq. 3 H226 ⚠ 3.8/3 STOT SE 3 H335 ⚠ 3.10/1 Asp. Tox. 1 H304 ⚠ 3.8/3 STOT SE 3 H336 ⚠ 4.1/C2 Aquatic Chronic 2 H411 EUH066
>= 15% - < 20%	Hydrocarbons, C10, aromatics <1% naphtalene	Index number: 649-424-00-3 EC: 918-811-1 REACH No.: 01- 2119463583 -34	⚠ 3.10/1 Asp. Tox. 1 H304 ⚠ 3.8/3 STOT SE 3 H336 ⚠ 4.1/C2 Aquatic Chronic 2 H411 EUH066
>= 3% - < 5%	butan-1-ol	Index number: 603-004-00-6 CAS: 71-36-3 EC: 200-751-6 REACH No.: 01- 2119484630 -38	⚠ 2.6/3 Flam. Liq. 3 H226 ⚠ 3.1/4/Oral Acute Tox. 4 H302 ⚠ 3.8/3 STOT SE 3 H335 ⚠ 3.2/2 Skin Irrit. 2 H315 ⚠ 3.3/1 Eye Dam. 1 H318 ⚠ 3.8/3 STOT SE 3 H336
>= 1% - < 3%	2-butoxyethyl acetate	Index number: 607-038-00-2 CAS: 112-07-2 EC: 203-933-3 REACH No.: 01- 2119475112 -47	⚠ 3.1/4/Inhal Acute Tox. 4 H332 ⚠ 3.1/4/Dermal Acute Tox. 4 H312

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>= 1% - < 3%	Hydrocarbons, C10-C13, aromatics, < 1% naphthalene	CAS: 1174522-16-7 EC: 922-153-0 REACH No.: 01-2119451097-39	 3.10/1 Asp. Tox. 1 H304  4.1/C2 Aquatic Chronic 2 H411 EUH066
>= 1% - < 3%	2-butoxyethanol	Index number: 603-014-00-0 CAS: 111-76-2 EC: 203-905-0 REACH No.: 01-2119475108-36	 3.1/4/Inhal Acute Tox. 4 H332  3.1/4/Dermal Acute Tox. 4 H312  3.1/4/Oral Acute Tox. 4 H302  3.3/2 Eye Irrit. 2 H319  3.2/2 Skin Irrit. 2 H315
>= 1% - < 3%	cyclohexanone	Index number: 606-010-00-7 CAS: 108-94-1 EC: 203-631-1	 2.6/3 Flam. Liq. 3 H226  3.1/4/Inhal Acute Tox. 4 H332
>= 1% - < 3%	solvent naphtha (petroleum), light arom. - Note P	Index number: 649-356-00-4 CAS: 64742-95-6 EC: 265-199-0 REACH No.: 01-2119455851-35	 2.6/3 Flam. Liq. 3 H226  3.8/3 STOT SE 3 H335  3.8/3 STOT SE 3 H336  4.1/C2 Aquatic Chronic 2 H411 EUH066
>= 0.1% - < 0.25%	1-methoxy-2-propanol	Index number: 603-064-00-3 CAS: 107-98-2 EC: 203-539-1 REACH No.: 01-2119457435-35	 2.6/3 Flam. Liq. 3 H226  3.8/3 STOT SE 3 H336
>= 0.01% - < 0.1%	E-caprolactam	Index number: 613-069-00-2 CAS: 105-60-2 EC: 203-313-2	 3.1/4/Inhal Acute Tox. 4 H332  3.1/4/Oral Acute Tox. 4 H302  3.3/2 Eye Irrit. 2 H319  3.8/3 STOT SE 3 H335  3.2/2 Skin Irrit. 2 H315
>= 0.001% - < 0.01%	methanol	Index number: 603-001-00-X CAS: 67-56-1 EC: 200-659-6 REACH No.: 01-2119433307-44	 2.6/2 Flam. Liq. 2 H225  3.1/2/Inhal Acute Tox. 2 H330  3.1/3/Dermal Acute Tox. 3 H311  3.1/3/Oral Acute Tox. 3 H301  3.8/1 STOT SE 1 H370

4. FIRST AID MEASURES

4.1. Description of first aid measures: for those who give the first aid treatments, wear appropriate personal protective equipment (PPE)
 In case of skin contact:

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Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

OBTAIN IMMEDIATE MEDICAL ATTENTION.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose off safely.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

In case of inhalation, consult a doctor immediately and show him packing or label.

4.2. Most important symptoms and effects, both acute and delayed

None

4.3. Indication of any immediate medical attention and special treatment needed

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

None

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media:

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke with formation of CO_x, SO_x, NO_x.

5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove all sources of ignition.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Provide adequate ventilation.

Use appropriate respiratory protection.

See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

Wash with plenty of water.

6.4. Reference to other sections

See also section 8 and 13

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7. HANDLING AND STORAGE

- 7.1. Precautions for safe handling: avoid the accumulation of electrostatic charges.
Avoid contact with skin and eyes, inhalation of vapours and mists.
Use localized ventilation system.
Don't use empty container before they have been cleaned.
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
Contaminated clothing should be changed before entering eating areas.
Do not eat or drink while working.
See also section 8 for recommended protective equipment.
- 7.2. Conditions for safe storage, including any incompatibilities
Store at below 20 °C. Keep away from unguarded flame and heat sources. Avoid direct exposure to sunlight.
Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.
Keep away from food, drink and feed.
Incompatible materials:
None in particular.
Instructions as regards storage premises:
Cool and adequately ventilated.
- 7.3. Specific end use(s)
None in particular

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- 8.1. Control parameters
- butan-1-ol - CAS: 71-36-3
ACGIH - LTE(8h): 20 ppm - Notes: Eye and URT irr
- 2-butoxyethyl acetate - CAS: 112-07-2
EU - LTE(8h): 133 mg/m³, 20 ppm - STE: 333 mg/m³, 50 ppm - Notes: Bold-type: Indicative Occupational Exposure Limit Values [2,3] and Limit Values for Occupational Exposure [4] (for references see bibliography)
ACGIH - LTE(8h): 20 ppm - Notes: A3 - Hemolysis
- 2-butoxyethanol - CAS: 111-76-2
EU - LTE(8h): 98 mg/m³, 20 ppm - STE: 246 mg/m³, 50 ppm - Notes: Bold-type: Indicative Occupational Exposure Limit Values [2,3] and Limit Values for Occupational Exposure [4] (for references see bibliography)
ACGIH - LTE(8h): 20 ppm - Notes: A3, BEI - Eye and URT irr
- cyclohexanone - CAS: 108-94-1
EU - LTE(8h): 40,8 mg/m³, 10 ppm - STE: 81,6 mg/m³, 20 ppm - Notes: Bold-type: Indicative Occupational Exposure Limit Values [2,3] and Limit Values for Occupational Exposure [4] (for references see bibliography)
ACGIH - LTE(8h): 20 ppm - STE: 50 ppm - Notes: Skin, A3 - Eye and URT irr
- 1-methoxy-2-propanol - CAS: 107-98-2
EU - LTE(8h): 375 mg/m³, 100 ppm - STE: 563 mg/m³, 150 ppm - Notes: Bold-type: Indicative Occupational Exposure Limit Values [2,3] and Limit Values for Occupational Exposure [4] (for references see bibliography)
ACGIH - LTE(8h): 50 ppm - STE: 100 ppm - Notes: A4 - Eye and URT irr
- E-caprolactam - CAS: 105-60-2
EU - LTE(8h): 10 mg/m³ - STE: 40 mg/m³ - Notes: Bold-type: Indicative Occupational Exposure Limit Values [2,3] and Limit Values for Occupational Exposure [4] (for references see bibliography)
ACGIH - LTE(8h): 5 mg/m³ - Notes: A5, (IFV) - URT irr
- methanol - CAS: 67-56-1
EU - LTE(8h): 260 mg/m³, 200 ppm - Notes: Bold-type: Indicative Occupational Exposure Limit Values [2,3] and Limit Values for Occupational Exposure [4] (for references see bibliography)

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ACGIH - LTE(8h): 200 ppm - STE: 250 ppm - Notes: Skin BEI - Headache, eye dam, dizziness, nausea

DNEL Exposure Limit Values

butan-1-ol - CAS: 71-36-3

Worker Professional: 310 mg/m³ - Consumer: 55 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, local effects

Consumer: 3.125 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

2-butoxyethanol - CAS: 111-76-2

Worker Professional: 89 mg/kg - Consumer: 44.5 mg/kg - Exposure: Human Dermal - Frequency: Short Term, systemic effects

Worker Professional: 633 mg/m³ - Consumer: 426 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, systemic effects

Consumer: 13.4 mg/kg - Exposure: Human Oral - Frequency: Short Term, systemic effects

Worker Professional: 246 mg/m³ - Consumer: 123 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, local effects

Worker Professional: 75 mg/kg - Consumer: 38 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

1-methoxy-2-propanol - CAS: 107-98-2

Worker Professional: 553.5 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, local effects

Worker Professional: 369 mg/m³ - Consumer: 43.9 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Worker Professional: 50.6 mg/kg - Consumer: 18.1 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

Consumer: 3.3 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

PNEC Exposure Limit Values

butan-1-ol - CAS: 71-36-3

Consumer: 0.082 mg/l - Exposure: Environment: Water acqua dolce

Consumer: 0.0082 mg/l - Exposure: Environment: Water acqua salata

Consumer: 0.015 mg/kg - Exposure: Environment: Soil

2-butoxyethanol - CAS: 111-76-2

Worker Professional: 8.8 mg/l - Exposure: Environment: Water Acqua dolce

Worker Professional: 0.88 mg/l - Exposure: Environment: Water Acqua di mare

Worker Professional: 2.8 mg/kg - Exposure: Environment: Soil

1-methoxy-2-propanol - CAS: 107-98-2

Worker Professional: 10 mg/l - Exposure: Environment: Water acqua dolce

Worker Professional: 1 mg/l - Exposure: Environment: Water acqua di mare

Worker Professional: 2.47 mg/kg - Exposure: Environment: Soil

8.2. Exposure controls

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

The provided information, as to the types of specific gloves, are based on published literature and glove manufacturer data. Work conditions can greatly effect on the adequacy and reliability of the gloves, so is recommended to contact the manufactures of gloves for this information.

Inspect and replace worn or damaged gloves

Use protective gloves, comply with EN374, that provides total protection of nitrile rubber, butyl, neoprene or PVC (minimum thickness 0,5 mm).

Respiratory protection:

Use respiratory protection where ventilation is insufficient or exposure is prolonged.

Use adequate protective respiratory equipment.

Thermal Hazards:

None

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Environmental exposure controls:

None

Appropriate engineering controls:

None

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes:
Appearance and colour:	Liquido marroncino	--	--
Odour:	Caratteristico	--	--
Odour threshold:	N.A.	--	--
pH:	--	--	--
Melting point / freezing point:	N.A.	--	--
Initial boiling point and boiling range:	180°C - 200°C	--	--
Flash point:	46°C ; 114.8°F °C	--	--
Evaporation rate:	N.A.	--	--
Solid/gas flammability:	N.A.	--	--
Upper/lower flammability or explosive limits:	N.A.	--	--
Vapour pressure:	N.A.	--	--
Vapour density:	N.A.	--	--
Relative density:	0,980 <> 0,015 g a 20°C	--	--
Solubility in water:	5 g/l	--	--
Solubility in oil:	N.A.	--	--
Partition coefficient (n-octanol/water):	N.A.	--	--
Auto-ignition temperature:	> 200°C	--	--
Decomposition temperature:	N.A.	--	--
Viscosity:	N.A.	--	--
Explosive properties:	1%- 10% (V)	--	--

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Oxidizing properties:	Yes	--	--
-----------------------	-----	----	----

9.2. Other information

Properties	Value	Method:	Notes:
Miscibility:	N.A.	--	--
Fat Solubility:	N.A.	--	--
Conductivity:	N.A.	--	--
Substance Groups relevant properties	N.A.	--	--

10. STABILITY AND REACTIVITY

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

None

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

Avoid contact with combustible materials. The product could catch fire.

10.6. Hazardous decomposition products

COx, SOx, NOx.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Toxicological information of the mixture:

N.A.

Toxicological information of the main substances found in the mixture:

butan-1-ol - CAS: 71-36-3

OBSERVATIONS ON HUMAN SUBJECTS:

Exposure through inhalation causes coughing, irritation to the mucous membranes, dermatitis, headache, dizziness and drowsiness, irritation to the nose, throat and eyes, and the formation of translucent vacuoles on the surface layer of the cornea.

2-butoxyethanol - CAS: 111-76-2

OBSERVATIONS ON HUMAN SUBJECTS:

probable lethal oral dose: 50-500 mg/Kg.

Following repeated and/or prolonged exposure, it causes headache, drowsiness, debility, stuttering, tremors, blurred vision, albuminuria and damage to the bone marrow.

cyclohexanone - CAS: 108-94-1

OBSERVATIONS ON HUMAN SUBJECTS:

effects following acute exposure inhalatory TCL: 50 ppm.

Inhibition for exposure at 50 ppm is not assured: at 75 ppm there is irritation to the eyes, nose, and respiratory tract.

Narcotic properties.

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If not differently specified, the information required in Regulation (EU)2015/830 listed below must be considered as N.A.:

- a) acute toxicity;
- b) skin corrosion/irritation;
- c) serious eye damage/irritation;
- d) respiratory or skin sensitisation;
- e) germ cell mutagenicity;
- f) carcinogenicity;
- g) reproductive toxicity;
- h) STOT-single exposure;
- i) STOT-repeated exposure;
- j) aspiration hazard.

12. ECOLOGICAL INFORMATION

12.1. Toxicity

Adopt sound working practices, so that the product is not released into the environment.

N.A.

12.2. Persistence and degradability

None

N.A.

12.3. Bioaccumulative potential

N.A.

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

12.6. Other adverse effects

None

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

14. TRANSPORT INFORMATION

14.1. UN number

UN number:

1263

EmS :

EmS Fire F-E EmS Spill S-E

14.2. UN proper shipping name

UN proper shipping name:

Paint

14.3. Transport hazard class(es)

Road (ADR):

Classe 3

Air (ICAO/IATA):

Classe 3

Sea (IMO):

Classe 3

14.4. Packing group

14.5. Environmental hazards

Marine pollutant:

p

14.6. Special precautions for user

Mfag:

310

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

N.A.

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15. REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Regulation (EU) 2015/830

Regulation (EU) n. 286/2011 (ATP 2 CLP)

Regulation (EU) n. 618/2012 (ATP 3 CLP)

Regulation (EU) n. 487/2013 (ATP 4 CLP)

Regulation (EU) n. 944/2013 (ATP 5 CLP)

Regulation (EU) n. 605/2014 (ATP 6 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

Restriction 3

Restriction 40

Restrictions related to the substances contained:

Restriction 28

Restriction 29

Where applicable, refer to the following regulatory provisions :

Directive 82/501/EEC ('Activities linked to risks of serious accidents') and subsequent amendments.

Regulation (EC) nr 648/2004 (detergents).

1999/13/EC (VOC directive)

Provisions related to directives 82/501/EC(Seveso), 96/82/EC(Seveso II):

N.A.

15.2. Chemical safety assessment

No

16. OTHER INFORMATION

Text of phrases referred to under heading 3:

H226 Flammable liquid and vapour.

H335 May cause respiratory irritation.

H304 May be fatal if swallowed and enters airways.

H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

EUH066 Repeated exposure may cause skin dryness or cracking.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H332 Harmful if inhaled.

H312 Harmful in contact with skin.

H319 Causes serious eye irritation.

H225 Highly flammable liquid and vapour.

H330 Fatal if inhaled.

H311 Toxic in contact with skin.

H301 Toxic if swallowed.

H370 Causes damage to organs if inhaled, in contact with skin and if swallowed.

Modified section versus the previous version:

2. HAZARDS IDENTIFICATION

3. COMPOSITION/INFORMATION ON INGREDIENTS

Safety Data Sheet

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- 8. EXPOSURE CONTROLS / PERSONAL PROTECTION
- 9. PHYSICAL AND CHEMICAL PROPERTIES
- 11. TOXICOLOGICAL INFORMATION
- 14. TRANSPORT INFORMATION
- 15. REGULATORY INFORMATION

This document was prepared by a competent person who has received appropriate training.

MAIN BIBLIOGRAPHIC SOURCES:

NIOSH - Registry of toxic effects of chemical substances (1983)

I.N.R.S. - Fiche Toxicologique

CCNL - Appendix 1 "TLV for 1989-90"

Istituto Superiore di Sanità- Chemical Substances National Inventory

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

From: [WALSH, Craig](#)
To: [Prokopakis, John](#); [BACHA, Eduardo](#)
Cc: [Melissa Vargo](#)
Subject: 9009920VR
Date: Tuesday, August 20, 2013 6:12:59 PM

Valspar Coating 9009920VR has changed its content and I have updated EPOCH.

Please use the name '9009920VR V2' on your upload sheet.

Let me know if you have any questions.

Thanks.

Craig Walsh
EHS Manager
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valspar

PACKAGING

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Pittsburgh, PA 15233
Tel 412-766-9300
Fax 412-766-8953

Volatile Composition Report

(Data based on formulation)

Valspar Code: 9009920VR

CAS Number	Component	Weight Percent	Weight/Gallon	HAP
64742-95-6	AROMATIC NAPHTHA, LIGHT	22.5	7.25	
123-42-2	DIACETONE ALCOHOL	13.7	7.83	
95-63-6	1,2,4-TRIMETHYLBENZENE	11.2	8.30	
78-59-1	ISOPHORONE	8.3	7.68	✓
108-10-1	METHYL ISOBUTYL KETONE	2.1	6.68	✓
1330-20-7	XYLENE	1.3	7.23	✓
71-36-3	BUTANOL	1.1	6.75	
8052-41-3	STODDARD SOLVENT	1.1	6.50	
98-82-8	CUMENE	0.4	8.00	✓
100-41-4	BENZENE, ETHYL	0.1	7.25	✓

SUM: 61.8**Lbs HAP per gallon of solids: 3.53****HAP Total Weight%: 12.2**

9/21/2016



Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product ID: 9372030
Product Name: 9372030 CLR EPOXY
Product Use: Paint product.
Print date: 21/Sep/2012
Revision Date: 21/Sep/2012

Company Identification

The Valspar Corporation - Packaging Division
2001 Tracy St.
Pittsburgh, PA 15233

Manufacturer's Phone: 1-412-766-9300

24-Hour Medical Emergency Phone: 1-888-345-5732

2. HAZARDS IDENTIFICATION

Primary Routes of Exposure:

Inhalation
Ingestion
Skin absorption

Eye Contact:

- Severe eye irritation
- Risk of serious damage to eyes.

Skin Contact:

- Causes skin irritation.
- May cause defatting of the skin.
- Dermatitis
- Harmful if absorbed through skin.
- May cause sensitization by skin contact.
- Can be absorbed through skin.

Ingestion:

- Irritation of the mouth, throat, and stomach.
- Harmful if swallowed.
- Aspiration hazard if swallowed - can enter lungs and cause damage.

Inhalation:

- Causes respiratory tract irritation.
- Harmful by inhalation.
- May cause chemical pneumonia.
- May cause damage to nasal and respiratory passages.
- May cause sensitization by inhalation.
- May cause pulmonary edema.
- May cause bronchopneumonia or bronchitis.

Target Organ and Other Health Effects:

- Spleen damage may occur.
- Liver injury may occur.
- Unconsciousness
- Kidney injury may occur.
- Causes headache, drowsiness or other effects to the central nervous system.
- Hearing loss.
- Risk of serious damage to the lungs (by inhalation).
- Blood disorders
- Contains glycol ether which has been shown to cause blood effects damage in laboratory animals.

This product contains ingredients that may contribute to the following potential chronic health effects:

- Notice: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.
- Possible sensitization.
- Contains formaldehyde which is considered a potential carcinogen by the Occupational Health and Safety Administration.

Carcinogens:

- Cancer hazard. Contains material which can cause cancer.
- Possible cancer hazard. Contains material which may cause cancer based on animal data.

3. COMPOSITION / INFORMATION ON HAZARDOUS INGREDIENTS

Ingredient Name CAS-No.	Approx. Weight %	Chemical Name
ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2	35 - 40	2-Butoxyethanol
N-BUTYL ALCOHOL 71-36-3	15 - 20	n-Butyl alcohol
AROMATIC NAPHTHA, LIGHT 64742-95-6	5 - 10	Petroleum naphtha, light aromatic
1,2,4-TRIMETHYLBENZENE 95-63-6	1 - 5	1,2,4-Trimethylbenzene
CUMENE 98-82-8	1 - 1	Cumene

3. COMPOSITION / INFORMATION ON HAZARDOUS INGREDIENTS

FORMALDEHYDE 50-00-0	0 - .099	Formaldehyde
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If this section is blank there are no hazardous components per OSHA guidelines.

4. FIRST AID MEASURES

Eye Contact:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. If medical assistance is not immediately available, flush an additional 15 minutes. Get medical attention immediately.

Skin Contact:

Remove contaminated clothing and shoes. Wash off immediately with plenty of water for at least 15 minutes. Get medical attention, if symptoms develop or persist.

Ingestion:

Rinse mouth with water. Give one or two glasses of water. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. If vomiting occurs, keep head lower than hips to prevent aspiration. Get medical attention immediately.

Inhalation:

Move injured person into fresh air and keep person calm under observation. Get medical attention immediately. For breathing difficulties, oxygen may be necessary. If breathing stops, provide artificial respiration. Place unconscious person on the side in the recovery position and ensure breathing.

Medical conditions aggravated by exposure:

Any respiratory or skin condition.

5. FIRE FIGHTING MEASURES

Flash point (Fahrenheit):	100
Flash point (Celsius):	38
Lower explosive limit (%):	1
Upper explosive limit (%):	11
Autoignition temperature:	not determined
Sensitivity to impact:	no
Sensitivity to static discharge:	Can be sensitive to static discharge hazards. Please see bonding and grounding information in Section 7.
Hazardous combustion products:	See Section 10.

Unusual fire and explosion hazards:

None known.

Extinguishing media:

Carbon dioxide, dry chemical, foam and/or water fog.

Fire fighting procedures:

Firefighters should be equipped with self-contained breathing apparatus and turn out gear. Keep containers and surroundings cool with water spray.

6. ACCIDENTAL RELEASE MEASURES

Action to be taken if material is released or spilled:

Ventilate the area. Avoid breathing dust or vapor. Use self-containing breathing apparatus or airmask for large spills in a confined area. Wipe, scrape or soak up in an inert material and put in a container for disposal. See section 7, "Handling and Storage", for proper container and storage procedures. Remove all sources of ignition. Soak up with inert absorbent material. Use only non-sparking tools. Avoid all personal contact.

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage:

Keep away from heat, sparks and open flame. - No smoking. Keep container closed when not in use. Do not store above 120 degrees F. (49 degrees C). Based on flash point and vapor pressure, suitable storage should be provided in accordance with OSHA regulation 1910.106, Ontario OH&S regulation 851 section 22. Empty containers may contain product residue, including flammable or explosive vapors. Do not cut, puncture or weld on or near container. All label warnings must be observed until the container has been commercially cleaned or reconditioned. If the product is used near or above the flashpoint, an ignition hazard may be present. Activities, uses, or operations which liberate vapor (such as mixing or free fall of liquids) may also present an ignition hazard. Please ensure containers and other interconnected equipment are properly bonded and grounded at all times.

8. PERSONAL PROTECTIVE EQUIPMENT AND EXPOSURE CONTROLS

Personal Protective Equipment

Eye and face protection:

Wear chemical goggles with splash shields or face shield. Contact lenses should not be worn when working with chemicals because contact lenses may contribute to the severity of an eye injury in case of exposure.

Skin protection:

Appropriate chemical resistant gloves should be worn.

Other Personnel Protection Data:

To prevent skin contact wear protective clothing covering all exposed areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Respiratory protection:

If exposure cannot be controlled below applicable limits, use the appropriate NIOSH approved respirator such as an air purifying respirator with organic vapor cartridge and dust/mist filter. Consult the respirator manufacturer's literature to ensure that the respirator will provide adequate protection. Read and follow all respirator manufacturer's instructions.

Ventilation

Use only in well-ventilated areas. Ensure adequate ventilation, especially in confined areas. Ovens used for curing should contain a fresh air purge to prevent vapours from accumulating and creating a possible explosive mixture. Where the product is used in a hazardous classified area, use explosion-proof electrical/ventilating/lighting/equipment.

Exposure Guidelines

OSHA Permissible Exposure Limits (PEL's)

Ingredient Name CAS-No.	Approx. Weight %	TWA (final)	Ceilings limits (final)	Skin designations
ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2	35 - 40	240 mg/m ³ TWA 50 ppm TWA		prevent or reduce skin absorption
N-BUTYL ALCOHOL 71-36-3	15 - 20	100 ppm TWA 300 mg/m ³ TWA		
CUMENE 98-82-8	.1 - 1	245 mg/m ³ TWA 50 ppm TWA		prevent or reduce skin absorption
FORMALDEHYDE 50-00-0	0 - .099	0.75 ppm TWA		

ACGIH Threshold Limit Value (TLV's)

Ingredient Name CAS-No.	Approx. Weight %	TWA	STEL	Ceiling limits	Skin designations
ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2	35 - 40	20 ppm TWA			
N-BUTYL ALCOHOL 71-36-3	15 - 20	20 ppm TWA			
1,2,4-TRIMETHYLBENZENE 95-63-6	1 - 5	25 PPM			
CUMENE 98-82-8	1 - 1	50 ppm TWA			
FORMALDEHYDE 50-00-0	0 - 099			0.3 ppm Ceiling	

9. PHYSICAL PROPERTIES

Odor:	Normal for this product type.
pH:	not determined
Vapor pressure:	1 mmHg @ 56.48°F (13.6°C)
Vapor density (air = 1.0):	4.3
Boiling point:	243.86°F (118°C)
Solubility in water:	not determined
Coefficient of water/oil distribution:	not determined
Density (lbs per US gallon):	7.89
Specific Gravity:	0.947
Evaporation rate (butyl acetate = 1.0):	0.5
Flash point (Fahrenheit):	100
Flash point (Celsius):	38
Lower explosive limit (%):	1
Upper explosive limit (%):	11
Autoignition temperature:	not determined

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	Heat.
Incompatibility:	Strong oxidizing agents
Hazardous Polymerization:	None anticipated.
Hazardous Decomposition Products:	Carbon monoxide and carbon dioxide.

Sensitivity to static discharge: Can be sensitive to static discharge hazards. Please see bonding and grounding information in Section 7.

11. TOXICOLOGICAL INFORMATION

Ingredient Name CAS-No.	Approx. Weight %	NIOSH - Selected LD50s and LC50s
ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2	35 - 40	= 2.21 mg/L Inhalation LC50 Rat 4 h = 220 mg/kg Dermal LD50 Rabbit = 2270 mg/kg Dermal LD50 Rat = 450 ppm Inhalation LC50 Rat 4 h = 470 mg/kg Oral LD50 Rat

11. TOXICOLOGICAL INFORMATION

N-BUTYL ALCOHOL 71-36-3	15 - 20	= 3400 mg/kg Dermal LD50 Rabbit = 790 mg/kg Oral LD50 Rat = 8000 ppm Inhalation LC50 Rat 4 h > 17.7 mg/L Inhalation LC50 Rat 4 h
AROMATIC NAPHTHA, LIGHT 64742-95-6	5 - 10	= 3400 ppm Inhalation LC50 Rat 4 h = 8400 mg/kg Oral LD50 Rat > 2000 mg/kg Dermal LD50 Rabbit > 5.2 mg/L Inhalation LC50 Rat 4 h
1,2,4-TRIMETHYLBENZENE 95-63-6	1 - 5	= 18 g/m ³ Inhalation LC50 Rat 4 h = 3400 mg/kg Oral LD50 Rat > 3160 mg/kg Dermal LD50 Rabbit
CUMENE 98-82-8	.1 - 1	= 1400 mg/kg Oral LD50 Rat = 39000 mg/m ³ Inhalation LC50 Rat 4 h > 3160 mg/kg Dermal LD50 Rabbit
FORMALDEHYDE 50-00-0	0 - .099	= 0.578 mg/L Inhalation LC50 Rat 4 h = 500 mg/kg Oral LD50 Rat

Mutagens/Teratogens/Carcinogens:

Possible mutagen

Cancer hazard. Contains material which can cause cancer. Possible cancer hazard. Contains material which may cause cancer based on animal data.

Ingredient Name CAS-No.	Approx. Weight %	California Prop 65 - Reproductive (Female)	California Prop 65 - Carcinogen
CUMENE 98-82-8	.1 - 1		carcinogen, initial date 4/6/10
FORMALDEHYDE 50-00-0	0 - .099		Listed. initial date 1/1/88 - carcinogen

Ingredient Name CAS-No.	Approx. Weight %	IARC Group 1 - Human Evidence	IARC Group 2A - Limited Human Data	IARC Group 2B - Sufficient Animal Data
CUMENE 98-82-8	.1 - 1			Monograph 101 [in preparation]
FORMALDEHYDE 50-00-0	0 - .099	Supplement 7 [1987] Monograph 62 [1995] Supplement 7 [1987]		

Ingredient Name CAS-No.	Approx. Weight %	NTP Known Carcinogens	NTP Suspect Carcinogens	NTP Evidence of Carcinogenicity
ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2	35 - 40			male rat-no evidence; female rat-equivocal evidence; male mice- some evidence; female mice-some evidence
CUMENE 98-82-8	.1 - 1			male rat-clear evidence; female rat-some evidence; male mice- clear evidence; female mice-clear evidence
FORMALDEHYDE 50-00-0	0 - .099		Reasonably Anticipated To Be A Human Carcinogen	

Ingredient Name CAS-No.	Approx. Weight %	OSHA - Hazard Communication Carcinogens	OSHA - Specifically Regulated Carcinogens	ACGIH Carcinogens
ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2	35 - 40			A3 Confirmed Animal Carcinogen with Unknown Relevance to Humans
FORMALDEHYDE 50-00-0	0 - .099	Present	Irritant and potential cancer hazard - see 29 CFR 1910.1048	A2 Suspected Human Carcinogen

12. ECOLOGICAL DATA

No information on ecology is available.

13. DISPOSAL CONSIDERATIONS

Disposal should be made in accordance with federal, state and local regulations.

14. TRANSPORTATION INFORMATION

U.S. Department of Transportation

UN ID Number (msds): UN1263
 Proper Shipping Name: PAINT
 Hazard Class: COMBUSTIBLE LIQUID
 Packing Group: III

U.S Hazmat and/or International DG shipment exceptions

The supplier may apply one of the following exceptions: Combustible Liquid, Consumer Commodity, Limited Quantity, Viscous Liquid, Does Not Sustain Combustion, or others, as allowed under 49CFR Hazmat Regulations. Please consult 49CFR Subchapter C to ensure that subsequent shipments comply with these exceptions.

Reportable Quantity Description:

International Air Transport Association (IATA):

UN ID Number (msds): UN1263
 Proper Shipping Name: Paint
 Hazard Class: 3
 Packing Group: III

International Maritime Organization (IMO):

IMO UN/ID Number (msds): UN1263
 Proper Shipping Name: PAINT
 Hazard Class: 3
 Packing Group: III

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

Ingredient Name CAS-No.	Approx. Weight %	SARA 302	SARA 313	CERCLA RQ in lbs.
ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2	35 - 40		YES	
N-BUTYL ALCOHOL 71-36-3	15 - 20		form R reporting required for 1.0% de minimis concentration	5000

15. REGULATORY INFORMATION

15. REGULATORY INFORMATION				
1,2,4-TRIMETHYLBENZENE 95-63-6	1 - 5		Listed	
CUMENE 98-82-8	1 - 1		form R reporting required for 1.0% de minimis concentration	5000
FORMALDEHYDE 50-00-0	0 - .099	EPCRA RQ = 100 lb	form R reporting required for 0.1% de minimis concentration	100

SARA 311/312 Hazard Class:

Acute:	yes
Chronic:	yes
Flammability:	yes
Reactivity:	no
Sudden Pressure:	no

U.S. STATE REGULATIONS:

Right to Know:

The specific chemical identity of a component may be withheld as a trade secret under 34 Pennsylvania Code, Chapter 317.

Pennsylvania Right To Know:

AROMATIC NAPHTHA, LIGHT	64742-95-6	
1,2,4-TRIMETHYLBENZENE	95-63-6	
ETHYLENE GLYCOL MONOBUTYL ETHER		111-76-2
FORMALDEHYDE	50-00-0	
N-BUTYL ALCOHOL	71-36-3	

Additional Non-Hazardous Materials

PROPRIETARY RESIN Trade Secret

California Proposition 65:

WARNING: This product contains chemicals known to the State of California to cause cancer.

Rule 66 status of product	Photochemically reactive.
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INTERNATIONAL REGULATIONS - Chemical Inventories

US TSCA Inventory:

All components of this product are in compliance with U.S. TSCA Chemical Substance Inventory Requirements.

Canada Domestic Substances List:

All components of this product are listed on the Domestic Substances List.

16. OTHER INFORMATION

HMIS Codes

Health:	2*
Flammability:	2
Reactivity:	1
PPE:	X - See Section 8 for Personal Protective Equipment (PPE).

Abbreviations:

OSHA - Occupational Safety and Health Administration, IARC - International Agency for Research on Cancer, NIOSH - National Institute of Occupational Safety and Health, NTP - National Toxicology Program, ACGIH - American Conference of Governmental Industrial Hygienists, SCAQMD - South Coast Air Quality Management District, TSCA - Toxic Substances Control Act, IATA - International Air Transport Association, IMO - International Maritime Organization, DOT - Department of Transportation, NA - Not applicable, NOT ESTAB - Not established, N.A.V. - Not available, RQ - Reportable quantity, WT - Weight, MG/CU M - Milligrams per cubic meter, G/L - Grams per liter, MM - Millimeters, MPPCF - Millions of particles per cubic foot, PPM - parts per million, PPT - parts per thousand, TCC/PM - Tag closed cup / Pensky-Martens, PB - Lead, PEL - Permissible exposure level, TWA - Time Weighted Average, STEL - Short term exposure limit, C - Celsius, F - Fahrenheit.

Disclaimer:

The data on this sheet represent typical values. Since application variables are a major factor in product performance, this information should serve only as a general guide. Valspar assumes no obligation or liability for use of this information. UNLESS VALSPAR AGREES OTHERWISE IN WRITING, VALSPAR MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AND DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR FREEDOM FROM PATENT INFRINGEMENT. VALSPAR WILL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES. Your only remedy for any defect in this product is the replacement of the defective product, or a refund of its purchase price, at our option. This MSDS contains additional information required by the state of Pennsylvania.

Preparation Information:

Prepared By:	Regulatory Affairs Department
Print date:	21/Sep/2012
Revision Date:	21/Sep/2012

valspar

PACKAGING

2001 Tracy Street
Pittsburgh, PA 15233
Tel 412-766-9300
Fax 412-766-8953

Volatile Composition Report

(Data based on formulation)

Valspar Code: 9372030

CAS Number	Component	Weight Percent	Weight/Gallon	HAP
111-76-2	ETHYLENE GLYCOL MONOBUTYL ETHER	35.6	7.51	
71-36-3	BUTANOL	18.3	6.75	
64742-95-6	AROMATIC NAPHTHA, LIGHT	8.2	7.25	
95-63-6	1,2,4-TRIMETHYLBENZENE	4.0	8.30	
1330-20-7	XYLENE	0.5	7.23	✓
123-42-2	DIACETONE ALCOHOL	0.3	7.83	
95-93-2	1,2,4,5-TETRAMETHYLBENZENE	0.2	7.20	
100-41-4	BENZENE, ETHYL	0.1	7.25	✓
98-82-8	CUMENE	0.1	8.00	✓

SUM: 67.3

Lbs HAP per gallon of solids: 0.21

HAP Total Weight%: 0.7

9/21/2016



Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product ID: 9372046
Product Name: 9372046 CL EPOXY
Product Use: Paint product.
Print date: 10/Aug/2013
Revision Date: 10/Aug/2013

Company Identification

The Valspar Corporation - Packaging Division
2001 Tracy St.
Pittsburgh, PA 15233

Manufacturer's Phone: 1-412-766-9300

24-Hour Medical Emergency Phone: 1-888-345-5732

2. HAZARDS IDENTIFICATION

Primary Routes of Exposure:

Inhalation
Ingestion
Skin absorption

Eye Contact:

- Severe eye irritation
- Risk of serious damage to eyes.

Skin Contact:

- Causes skin irritation.
- Dermatitis
- May cause defatting of the skin.
- Harmful if absorbed through skin.
- Can be absorbed through skin.
- May cause sensitization by skin contact.

Ingestion:

- Irritation of the mouth, throat, and stomach.
- Harmful if swallowed.
- Aspiration hazard if swallowed - can enter lungs and cause damage.

Inhalation:

- Causes respiratory tract irritation.
- Harmful by inhalation.
- May cause damage to nasal and respiratory passages.
- May cause pulmonary edema.
- May cause sensitization by inhalation.
- May cause chemical pneumonia.

Target Organ and Other Health Effects:

- Causes headache, drowsiness or other effects to the central nervous system.
- Kidney injury may occur.
- Liver injury may occur.
- Blood disorders
- Hearing loss.
- Unconsciousness

This product contains ingredients that may contribute to the following potential chronic health effects:

- Notice: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.
- Contains formaldehyde which is considered a potential carcinogen by the Occupational Health and Safety Administration.
- Possible sensitization.

Carcinogens:

- Possible cancer hazard. Contains material which may cause cancer based on animal data.
- Cancer hazard. Contains material which can cause cancer.

3. COMPOSITION / INFORMATION ON HAZARDOUS INGREDIENTS

Ingredient Name CAS-No.	Approx. Weight %	Chemical Name
XYLENE 1330-20-7	25 - 30	Xylenes (o-, m-, p- isomers)
N-BUTYL ALCOHOL 71-36-3	10 - 15	n-Butyl alcohol
PROPYLENEGLYCOL MONOMETHYL ETHER ACETATE 108-65-6	10 - 15	2-methoxy-1-methylethyl acetate
ISOPHORONE 78-59-1	5 - 10	Isophorone
ETHYLBENZENE 100-41-4	5 - 10	Ethyl benzene
METHYL ISOBUTYL KETONE 108-10-1	1 - 5	Methylisobutyl ketone
FORMALDEHYDE 50-00-0	0 - .099	Formaldehyde

If this section is blank there are no hazardous components per OSHA guidelines.

4. FIRST AID MEASURES

Eye Contact:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. If medical assistance is not immediately available, flush an additional 15 minutes. Get medical attention immediately.

Skin Contact:

Remove contaminated clothing and shoes. Wash off immediately with plenty of water for at least 15 minutes. Get medical attention, if symptoms develop or persist.

Ingestion:

Rinse mouth with water. Give one or two glasses of water. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. If vomiting occurs, keep head lower than hips to prevent aspiration. Get medical attention immediately.

Inhalation:

Move injured person into fresh air and keep person calm under observation. Get medical attention immediately. For breathing difficulties, oxygen may be necessary. If breathing stops, provide artificial respiration. Place unconscious person on the side in the recovery position and ensure breathing.

Medical conditions aggravated by exposure:

Any respiratory or skin condition.

5. FIRE FIGHTING MEASURES

Flash point (Fahrenheit):	76
Flash point (Celsius):	24
Lower explosive limit (%):	1
Upper explosive limit (%):	13
Autoignition temperature:	not determined
Sensitivity to impact:	no
Sensitivity to static discharge:	Subject to static discharge hazards. Please see bonding and grounding information in Section 7.
Hazardous combustion products:	See Section 10.

Unusual fire and explosion hazards:

None known.

Extinguishing media:

Carbon dioxide, dry chemical, foam and/or water fog.

Fire fighting procedures:

Firefighters should be equipped with self-contained breathing apparatus and turn out gear. Keep containers and surroundings cool with water spray.

6. ACCIDENTAL RELEASE MEASURES

Action to be taken if material is released or spilled:

Ventilate the area. Avoid breathing dust or vapor. Use self-containing breathing apparatus or airmask for large spills in a confined area. Wipe, scrape or soak up in an inert material and put in a container for disposal. See section 7, "Handling and Storage", for proper container and storage procedures. Remove all sources of ignition. Soak up with inert absorbent material. Use only non-sparking tools. Avoid contact with eyes.

7. HANDLING AND STORAGE

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage:

Keep away from heat, sparks and open flame. - No smoking. Keep container closed when not in use. Do not store above 120 degrees F. (49 degrees C). Based on flash point and vapor pressure, suitable storage should be provided in accordance with OSHA regulation 1910.106, Ontario OH&S regulation 851 section 22. Empty containers may contain product residue, including flammable or explosive vapors. Do not cut, puncture or weld on or near container. All label warnings must be observed until the container has been commercially cleaned or reconditioned. If the product is used near or above the flashpoint, an ignition hazard may be present. Activities, uses, or operations which liberate vapor (such as mixing or free fall of liquids) may also present an ignition hazard. Please ensure containers and other interconnected equipment are properly bonded and grounded at all times.

8. PERSONAL PROTECTIVE EQUIPMENT AND EXPOSURE CONTROLS

Personal Protective Equipment

Eye and face protection:

Wear chemical goggles with splash shields or face shield. Contact lenses should not be worn when working with chemicals because contact lenses may contribute to the severity of an eye injury in case of exposure.

Skin protection:

Appropriate chemical resistant gloves should be worn.

Other Personnel Protection Data:

To prevent skin contact wear protective clothing covering all exposed areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Respiratory protection:

If exposure cannot be controlled below applicable limits, use the appropriate NIOSH approved respirator such as an air purifying respirator with organic vapor cartridge and dust/mist filter. Consult the respirator manufacturer's literature to ensure that the respirator will provide adequate protection. Read and follow all respirator manufacturer's instructions.

Ventilation

Use only in well-ventilated areas. Ensure adequate ventilation, especially in confined areas. Ovens used for curing should contain a fresh air purge to prevent vapours from accumulating and creating a possible explosive mixture. Where the product is used in a hazardous classified area, use explosion-proof electrical/ventilating/lighting/equipment.

Exposure Guidelines

OSHA Permissible Exposure Limits (PEL's)

Ingredient Name CAS-No.	Approx. Weight %	TWA (final)	Ceilings limits (final)	Skin designations
XYLENE 1330-20-7	25 - 30	100 ppm TWA 435 mg/m ³ TWA		
N-BUTYL ALCOHOL 71-36-3	10 - 15	100 ppm TWA 300 mg/m ³ TWA		
ISOPHORONE 78-59-1	5 - 10	140 mg/m ³ TWA 25 ppm TWA		
ETHYLBENZENE 100-41-4	5 - 10	100 ppm TWA 435 mg/m ³ TWA		
METHYL ISOBUTYL KETONE 108-10-1	1 - 5	100 ppm TWA 410 mg/m ³ TWA		
FORMALDEHYDE 50-00-0	0 - .099	0.75 ppm TWA		

ACGIH Threshold Limit Value (TLV's)

Ingredient Name CAS-No.	Approx. Weight %	TWA	STEL	Ceiling limits	Skin designations
XYLENE 1330-20-7	25 - 30	100 ppm TWA	150 ppm STEL		
N-BUTYL ALCOHOL 71-36-3	10 - 15	20 ppm TWA			
ISOPHORONE 78-59-1	5 - 10			5 ppm Ceiling	
ETHYLBENZENE 100-41-4	5 - 10	100 ppm TWA	125 ppm STEL		
METHYL ISOBUTYL KETONE 108-10-1	1 - 5	20 ppm TWA	75 ppm STEL		
FORMALDEHYDE 50-00-0	0 - .099			0.3 ppm Ceiling	

9. PHYSICAL PROPERTIES

Odor:	Normal for this product type.
Physical State:	liquid
pH:	not determined
Vapor pressure:	90.2255639 mmHg @ 77°F (25°C)
Vapor density (air = 1.0):	4.7
Boiling point:	237.2°F (114°C)
Solubility in water:	not determined
Coefficient of water/oil distribution:	not determined
Density (lbs per US gallon):	7.83
Specific Gravity:	.96
Evaporation rate (butyl acetate = 1.0):	1.6
Flash point (Fahrenheit):	76
Flash point (Celsius):	24
Lower explosive limit (%):	1
Upper explosive limit (%):	13
Autoignition temperature:	not determined

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	Heat.
Incompatibility:	Strong oxidizing agents
Hazardous Polymerization:	None anticipated.
Hazardous Decomposition Products:	Carbon monoxide and carbon dioxide.

Sensitivity to static discharge:	Subject to static discharge hazards. Please see bonding and grounding information in Section 7.
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11. TOXICOLOGICAL INFORMATION

Ingredient Name CAS-No.	Approx. Weight %	NIOSH - Selected LD50s and LC50s
XYLENE 1330-20-7	25 - 30	= 4300 mg/kg Oral LD50 Rat = 47635 mg/L Inhalation LC50 Rat 4 h = 5000 ppm Inhalation LC50 Rat 4 h > 1700 mg/kg Dermal LD50 Rabbit

11. TOXICOLOGICAL INFORMATION

N-BUTYL ALCOHOL 71-36-3	10 - 15	= 3400 mg/kg Dermal LD50 Rabbit = 790 mg/kg Oral LD50 Rat = 8000 ppm Inhalation LC50 Rat 4 h > 17.7 mg/L Inhalation LC50 Rat 4 h
PROPYLENEGLYCOL MONOMETHYL ETHER ACETATE 108-65-6	10 - 15	= 8532 mg/kg Oral LD50 Rat > 5000 mg/kg Dermal LD50 Rabbit
ISOPHORONE 78-59-1	5 - 10	= 1390 mg/kg Dermal LD50 Rat = 1870 mg/kg Oral LD50 Rat = 7 mg/L Inhalation LC50 Rat 4 h
ETHYLBENZENE 100-41-4	5 - 10	= 15354 mg/kg Dermal LD50 Rabbit = 17.2 mg/L Inhalation LC50 Rat 4 h = 3500 mg/kg Oral LD50 Rat
METHYL ISOBUTYL KETONE 108-10-1	1 - 5	= 2080 mg/kg Oral LD50 Rat = 8.2 mg/L Inhalation LC50 Rat 4 h > 16000 mg/kg Dermal LD50 Rabbit
FORMALDEHYDE 50-00-0	0 - .099	= 0.578 mg/L Inhalation LC50 Rat 4 h = 500 mg/kg Oral LD50 Rat

Mutagens/Teratogens/Carcinogens:

Possible mutagen

Possible cancer hazard. Contains material which may cause cancer based on animal data. Cancer hazard. Contains material which can cause cancer.

Contains ethylbenzene, which has been determined by NTP to be an animal carcinogen with no known relevance to humans. IARC has classified ethylbenzene as possibly carcinogenic to humans (2b) on the basis of sufficient evidence of carcinogenicity in laboratory animals but inadequate evidence of cancer in humans.

Ingredient Name CAS-No.	Approx. Weight %	California Prop 65 - Reproductive (Female)	California Prop 65 - Carcinogen
ETHYLBENZENE 100-41-4	5 - 10		Listed. initial date 6/11/04 - carcinogen
METHYL ISOBUTYL KETONE 108-10-1	1 - 5		carcinogen, initial date 11/04/11
FORMALDEHYDE 50-00-0	0 - .099		Listed. initial date 1/1/88 - carcinogen

Ingredient Name CAS-No.	Approx. Weight %	IARC Group 1 - Human Evidence	IARC Group 2A - Limited Human Data	IARC Group 2B - Sufficient Animal Data
ETHYLBENZENE 100-41-4	5 - 10			Monograph 77 [2000]
METHYL ISOBUTYL KETONE 108-10-1	1 - 5			Monograph 101 [in preparation]
FORMALDEHYDE 50-00-0	0 - .099	Supplement 7 [1987] Monograph 62 [1995] Supplement 7 [1987]		

Ingredient Name CAS-No.	Approx. Weight %	NTP Known Carcinogens	NTP Suspect Carcinogens
FORMALDEHYDE 50-00-0	0 - .099		Reasonably Anticipated To Be A Human Carcinogen

Ingredient Name CAS-No.	Approx. Weight %	OSHA - Hazard Communication Carcinogens	OSHA - Specifically Regulated Carcinogens	ACGIH Carcinogens
ISOPHORONE 78-59-1	5 - 10			A3 Confirmed Animal Carcinogen with Unknown Relevance to Humans
ETHYLBENZENE 100-41-4	5 - 10	Present		A3 Confirmed Animal Carcinogen with Unknown Relevance to Humans
METHYL ISOBUTYL KETONE 108-10-1	1 - 5			A3 Confirmed Animal Carcinogen with Unknown Relevance to Humans
FORMALDEHYDE 50-00-0	0 - .099	Present	Irritant and potential cancer hazard - see 29 CFR 1910.1048	A2 Suspected Human Carcinogen

12. ECOLOGICAL DATA

No information on ecology is available.

13. DISPOSAL CONSIDERATIONS

Disposal should be made in accordance with federal, state and local regulations.

14. TRANSPORTATION INFORMATION

U.S. Department of Transportation

UN ID Number (msds):	UN1263
Proper Shipping Name:	PAINT
Hazard Class:	3
Packing Group:	III

U.S Hazmat and/or International DG shipment exceptions

The supplier may apply one of the following exceptions: Combustible Liquid, Consumer Commodity, Limited Quantity, Viscous Liquid, Does Not Sustain Combustion, or others, as allowed under 49CFR Hazmat Regulations. Please consult 49CFR Subchapter C to ensure that subsequent shipments comply with these exceptions.

Reportable Quantity Description:

International Air Transport Association (IATA):

UN/ID No:	UN1263
Proper shipping name:	Paint
Hazard Class:	3
Packing Group:	III

International Maritime Organization (IMO):

UN/ID No:	UN1263
Proper shipping name:	PAINT
Hazard Class:	3
Packing Group:	III
Marine Pollutant	No

15. REGULATORY INFORMATION

Ingredient Name CAS-No.	Approx. Weight %	SARA 302	SARA 313	CERCLA RQ in lbs.
XYLENE 1330-20-7	25 - 30		form R reporting required for 1.0% de minimis concentration	100
N-BUTYL ALCOHOL 71-36-3	10 - 15		form R reporting required for 1.0% de minimis concentration	5000
ISOPHORONE 78-59-1	5 - 10			5000
ETHYLBENZENE 100-41-4	5 - 10		form R reporting required for 1.0% de minimis concentration	1000
METHYL ISOBUTYL KETONE 108-10-1	1 - 5		form R reporting required for 1.0% de minimis concentration	5000
FORMALDEHYDE 50-00-0	0 - .099	EPCRA RQ = 100 lb	form R reporting required for 0.1% de minimis concentration	100

SARA 311/312 Hazard Class:

Acute:	yes
Chronic:	yes
Flammability:	yes
Reactivity:	no
Sudden Pressure:	no

U.S. STATE REGULATIONS:

Right to Know:

The specific chemical identity of a component may be withheld as a trade secret under 34 Pennsylvania Code, Chapter 317.

Pennsylvania Right To Know:

ETHYLBENZENE	100-41-4	
XYLENE	1330-20-7	
N-BUTYL ALCOHOL	71-36-3	
METHYL ISOBUTYL KETONE	108-10-1	
PROPYLENEGLYCOL MONOMETHYL ETHER ACETATE		108-65-6
FORMALDEHYDE	50-00-0	
ISOPHORONE	78-59-1	

Additional Non-Hazardous Materials

PROPRIETARY RESIN Trade Secret

California Proposition 65:

WARNING: This product contains chemicals known to the State of California to cause cancer.

Rule 66 status of product	Photochemically reactive.
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INTERNATIONAL REGULATIONS - Chemical Inventories

US TSCA Inventory:

All components of this product are in compliance with U.S. TSCA Chemical Substance Inventory Requirements.

Canada Domestic Substances List:

All components of this product are listed on the Domestic Substances List.

16. OTHER INFORMATION**HMIS Codes**

Health:	2*
Flammability:	3
Reactivity:	1
PPE:	X - See Section 8 for Personal Protective Equipment (PPE).

Abbreviations:

OSHA - Occupational Safety and Health Administration, IARC - International Agency for Research on Cancer, NIOSH - National Institute of Occupational Safety and Health, NTP - National Toxicology Program, ACGIH - American Conference of Governmental Industrial Hygienists, SCAQMD - South Coast Air Quality Management District, TSCA - Toxic Substances Control Act, IATA - International Air Transport Association, IMO - International Maritime Organization, DOT - Department of Transportation, NA - Not applicable, NOT ESTAB - Not established, N.A.V. - Not available, RQ - Reportable quantity, WT - Weight, MG/CU M - Milligrams per cubic meter, G/L - Grams per liter, MM - Millimeters, MPPCF - Millions of particles per cubic foot, PPM - parts per million, PPT - parts per thousand, TCC/PM - Tag closed cup / Pensky-Martens, PB - Lead, PEL - Permissible exposure level, TWA - Time Weighted Average, STEL - Short term exposure limit, C - Celsius, F - Fahrenheit.

Disclaimer:

The data on this sheet represent typical values. Since application variables are a major factor in product performance, this information should serve only as a general guide. Valspar assumes no obligation or liability for use of this information. UNLESS VALSPAR AGREES OTHERWISE IN WRITING, VALSPAR MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AND DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR FREEDOM FROM PATENT INFRINGEMENT. VALSPAR WILL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES. Your only remedy for any defect in this product is the replacement of the defective product, or a refund of its purchase price, at our option. This MSDS contains additional information required by the state of Pennsylvania.

Preparation Information:

Prepared By:	Regulatory Affairs Department
Print date:	10/Aug/2013
Revision Date:	10/Aug/2013

valspar

PACKAGING

2001 Tracy Street
Pittsburgh, PA 15233
Tel 412-766-9300
Fax 412-766-8953

Volatile Composition Report

(Data based on formulation)

Valspar Code: 9372046

CAS Number	Component	Weight Percent	Weight/ Gallon	HAP
1330-20-7	XYLENE	26.1	7.23	✓
71-36-3	BUTANOL	12.6	6.75	
108-65-6	PROPYLENE GLYCOL MONO METHYL ETHER ACETATE	11.2	8.06	
78-59-1	ISOPHORONE	7.7	7.68	✓
100-41-4	BENZENE, ETHYL	5.3	7.25	✓
108-10-1	METHYL ISOBUTYL KETONE	3.2	6.68	✓
108-88-3	TOLUENE	0.5	7.26	✓
64-17-5	ETHANOL	0.5	6.58	
123-42-2	DIACETONE ALCOHOL	0.3	7.83	
111-76-2	ETHYLENE GLYCOL MONOBUTYL ETHER	0.1	7.51	

SUM: 67.5**Lbs HAP per gallon of solids: 12.99****HAP Total Weight%: 42.8**

9/21/2016



Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product ID: 9851579.1161
Product Name: 9851579 GOLD EPOXY
Product Use: Paint product.
Print date: 03/Jun/2014
Revision Date: 02/Jun/2014

Company Identification

The Valspar Corporation - Packaging Division
2001 Tracy St.
Pittsburgh, PA 15233

Manufacturer's Phone: 1-412-766-9300

24-Hour Medical Emergency Phone: 1-888-345-5732

2. HAZARDS IDENTIFICATION

Primary Routes of Exposure:

Inhalation
Ingestion
Skin absorption

Eye Contact:

- Severe eye irritation
- Risk of serious damage to eyes.

Skin Contact:

- Causes skin irritation.
- May cause defatting of the skin.
- Dermatitis
- Harmful if absorbed through skin.
- Can be absorbed through skin.
- May cause sensitization by skin contact.

Ingestion:

- Irritation of the mouth, throat, and stomach.
- Harmful if swallowed.
- Aspiration hazard if swallowed - can enter lungs and cause damage.

Inhalation:

- Causes respiratory tract irritation.
- Harmful by inhalation.
- May cause damage to nasal and respiratory passages.
- May cause bronchopneumonia or bronchitis.
- May cause sensitization by inhalation.
- May cause pulmonary edema.
- May cause chemical pneumonia.

Target Organ and Other Health Effects:

- Causes headache, drowsiness or other effects to the central nervous system.
- Unconsciousness
- Liver injury may occur.
- Kidney injury may occur.
- Spleen damage may occur.
- Contains glycol ether which has been shown to cause blood effects damage in laboratory animals.
- Blood disorders
- Risk of serious damage to the lungs (by inhalation).
- Hearing loss.

This product contains ingredients that may contribute to the following potential chronic health effects:

- Notice: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.
- Possible sensitization.
- Contains formaldehyde which is considered a potential carcinogen by the Occupational Health and Safety Administration.

Carcinogens:

- Cancer hazard. Contains material which can cause cancer.
- Possible cancer hazard. Contains material which may cause cancer based on animal data.

3. COMPOSITION / INFORMATION ON HAZARDOUS INGREDIENTS

Ingredient Name CAS-No.	Approx. Weight %	Chemical Name
AROMATIC NAPHTHA, LIGHT 64742-95-6	10 - 15	Petroleum naphtha, light aromatic
PROPYLENEGLYCOL MONOMETHYL ETHER ACETATE 108-65-6	10 - 15	2-methoxy-1-methylethyl acetate
ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2	10 - 15	2-Butoxyethanol
CYCLOHEXANONE 108-94-1	5 - 10	Cyclohexanone

3. COMPOSITION / INFORMATION ON HAZARDOUS INGREDIENTS

N-BUTYL ALCOHOL 71-36-3	5 - 10	n-Butyl alcohol
1,2,4-TRIMETHYLBENZENE 95-63-6	5 - 10	1,2,4-Trimethylbenzene
XYLENE 1330-20-7	1 - 5	Xylenes (o-, m-, p- isomers)
ETHYLBENZENE 100-41-4	.1 - 1	Ethyl benzene
CUMENE 98-82-8	.1 - 1	Cumene
FORMALDEHYDE 50-00-0	0 - .099	Formaldehyde

If this section is blank there are no hazardous components per OSHA guidelines.

4. FIRST AID MEASURES

Eye Contact:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. If medical assistance is not immediately available, flush an additional 15 minutes. Get medical attention immediately.

Skin Contact:

Remove contaminated clothing and shoes. Wash off immediately with plenty of water for at least 15 minutes. Get medical attention, if symptoms develop or persist.

Ingestion:

Rinse mouth with water. Give one or two glasses of water. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. If vomiting occurs, keep head lower than hips to prevent aspiration. Get medical attention immediately.

Inhalation:

Move injured person into fresh air and keep person calm under observation. Get medical attention immediately. For breathing difficulties, oxygen may be necessary. If breathing stops, provide artificial respiration. Place unconscious person on the side in the recovery position and ensure breathing.

Medical conditions aggravated by exposure:

Any respiratory or skin condition.

5. FIRE FIGHTING MEASURES

Flash point (Fahrenheit):	104
Flash point (Celsius):	40
Lower explosive limit (%):	1
Upper explosive limit (%):	13
Autoignition temperature:	not determined
Sensitivity to impact:	no
Sensitivity to static discharge:	Can be sensitive to static discharge hazards. Please see bonding and grounding information in Section 7.
Hazardous combustion products:	See Section 10.

Unusual fire and explosion hazards:

None known.

Extinguishing media:

Carbon dioxide, dry chemical, foam and/or water fog.

Fire fighting procedures:

Firefighters should be equipped with self-contained breathing apparatus and turn out gear. Keep containers and surroundings cool with water spray.

6. ACCIDENTAL RELEASE MEASURES

Action to be taken if material is released or spilled:

Ventilate the area. Avoid breathing dust or vapor. Use self-containing breathing apparatus or airmask for large spills in a confined area. Wipe, scrape or soak up in an inert material and put in a container for disposal. See section 7, "Handling and Storage", for proper container and storage procedures. Remove all sources of ignition. Soak up with inert absorbent material. Use only non-sparking tools. Avoid contact with eyes.

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage:

Keep away from heat, sparks and open flame. - No smoking. Keep container closed when not in use. Do not store above 120 degrees F. (49 degrees C). Based on flash point and vapor pressure, suitable storage should be provided in accordance with OSHA regulation 1910.106, Ontario OH&S regulation 851 section 22. Empty containers may contain product residue, including flammable or explosive vapors. Do not cut, puncture or weld on or near container. All label warnings must be observed until the container has been commercially cleaned or reconditioned. If the product is used near or above the flashpoint, an ignition hazard may be present. Activities, uses, or operations which liberate vapor (such as mixing or free fall of liquids) may also present an ignition hazard. Please ensure containers and other interconnected equipment are properly bonded and grounded at all times.

8. PERSONAL PROTECTIVE EQUIPMENT AND EXPOSURE CONTROLS

Personal Protective Equipment

Eye and face protection:

Wear chemical goggles with splash shields or face shield. Contact lenses should not be worn when working with chemicals because contact lenses may contribute to the severity of an eye injury in case of exposure.

Skin protection:

Appropriate chemical resistant gloves should be worn.

Other Personal Protection Data:

To prevent skin contact wear protective clothing covering all exposed areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Respiratory protection:

If exposure cannot be controlled below applicable limits, use the appropriate NIOSH approved respirator such as an air purifying respirator with organic vapor cartridge and dust/mist filter. Consult the respirator manufacturer's literature to ensure that the respirator will provide adequate protection. Read and follow all respirator manufacturer's instructions.

Ventilation

Use only in well-ventilated areas. Ensure adequate ventilation, especially in confined areas. Ovens used for curing should contain a fresh air purge to prevent vapours from accumulating and creating a possible explosive mixture. Where the product is used in a hazardous classified area, use explosion-proof electrical/ventilating/lighting/equipment.

Exposure Guidelines

OSHA Permissible Exposure Limits (PEL's)

Ingredient Name CAS-No.	Approx. Weight %	TWA (final)	Ceilings limits (final)	Skin designations
ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2	10 - 15	240 mg/m ³ TWA 50 ppm TWA		prevent or reduce skin absorption
CYCLOHEXANONE 108-94-1	5 - 10	200 mg/m ³ TWA 50 ppm TWA		

Ingredient Name CAS-No.	Approx. Weight %	TWA (final)	Ceilings limits (final)	Skin designations
N-BUTYL ALCOHOL 71-36-3	5 - 10	100 ppm TWA 300 mg/m ³ TWA		
XYLENE 1330-20-7	1 - 5	100 ppm TWA 435 mg/m ³ TWA		
ETHYLBENZENE 100-41-4	.1 - 1	100 ppm TWA 435 mg/m ³ TWA		
CUMENE 98-82-8	.1 - 1	245 mg/m ³ TWA 50 ppm TWA		prevent or reduce skin absorption
FORMALDEHYDE 50-00-0	0 - .099	0.75 ppm TWA		

ACGIH Threshold Limit Value (TLV's)

Ingredient Name CAS-No.	Approx. Weight %	TWA	STEL	Ceiling limits	Skin designations
ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2	10 - 15	20 ppm TWA			
CYCLOHEXANONE 108-94-1	5 - 10	20 ppm TWA	50 ppm STEL		CAN BE ABSORBED THROUGH THE SKIN
N-BUTYL ALCOHOL 71-36-3	5 - 10	20 ppm TWA			
1,2,4-TRIMETHYLBENZENE 95-63-6	5 - 10	25 PPM			
XYLENE 1330-20-7	1 - 5	100 ppm TWA	150 ppm STEL		
ETHYLBENZENE 100-41-4	.1 - 1	100 ppm TWA	125 ppm STEL		
CUMENE 98-82-8	.1 - 1	50 ppm TWA			
FORMALDEHYDE 50-00-0	0 - .099			0.3 ppm Ceiling	

9. PHYSICAL PROPERTIES

Odor:	Normal for this product type.
Physical State:	liquid
pH:	not determined
Vapor pressure:	11 mmHg @ 77°F (25°C)
Vapor density (air = 1.0):	4.6
Boiling point:	243.86°F (118°C)
Solubility in water:	not determined
Coefficient of water/oil distribution:	not determined
Density (lbs per US gallon):	8.16
Specific Gravity:	.98
Evaporation rate (butyl acetate = 1.0):	0.6
Flash point (Fahrenheit):	104
Flash point (Celsius):	40
Lower explosive limit (%):	1
Upper explosive limit (%):	13
Autoignition temperature:	not determined

10. STABILITY AND REACTIVITY

Stability:

Conditions to Avoid:

Incompatibility:

Hazardous Polymerization:

Hazardous Decomposition Products:

Stable under normal conditions.

Heat.

Strong oxidizing agents

None anticipated.

Carbon monoxide and carbon dioxide.

Sensitivity to static discharge:

Can be sensitive to static discharge hazards. Please see bonding and grounding information in Section 7.

11. TOXICOLOGICAL INFORMATION

Ingredient Name CAS-No.	Approx. Weight %	NIOSH - Selected LD50s and LC50s
AROMATIC NAPHTHA, LIGHT 64742-95-6	10 - 15	= 3400 ppm Inhalation LC50 Rat 4 h = 8400 mg/kg Oral LD50 Rat > 2000 mg/kg Dermal LD50 Rabbit > 5.2 mg/L Inhalation LC50 Rat 4 h
PROPYLENEGLYCOL MONOMETHYL ETHER ACETATE 108-65-6	10 - 15	= 8532 mg/kg Oral LD50 Rat > 5000 mg/kg Dermal LD50 Rabbit
ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2	10 - 15	= 2.21 mg/L Inhalation LC50 Rat 4 h = 220 mg/kg Dermal LD50 Rabbit = 2270 mg/kg Dermal LD50 Rat = 450 ppm Inhalation LC50 Rat 4 h = 470 mg/kg Oral LD50 Rat
CYCLOHEXANONE 108-94-1	5 - 10	= 10.7 mg/L Inhalation LC50 Rat 4 h = 800 mg/kg Oral LD50 Rat = 8000 ppm Inhalation LC50 Rat 4 h = 948 mg/kg Dermal LD50 Rabbit
N-BUTYL ALCOHOL 71-36-3	5 - 10	= 3400 mg/kg Dermal LD50 Rabbit = 790 mg/kg Oral LD50 Rat = 8000 ppm Inhalation LC50 Rat 4 h > 17.7 mg/L Inhalation LC50 Rat 4 h
1,2,4-TRIMETHYLBENZENE 95-63-6	5 - 10	= 18 g/m ³ Inhalation LC50 Rat 4 h = 3400 mg/kg Oral LD50 Rat > 3160 mg/kg Dermal LD50 Rabbit
XYLENE 1330-20-7	1 - 5	= 4300 mg/kg Oral LD50 Rat = 47635 mg/L Inhalation LC50 Rat 4 h = 5000 ppm Inhalation LC50 Rat 4 h > 1700 mg/kg Dermal LD50 Rabbit
ETHYLBENZENE 100-41-4	.1 - 1	= 15354 mg/kg Dermal LD50 Rabbit = 17.2 mg/L Inhalation LC50 Rat 4 h = 3500 mg/kg Oral LD50 Rat
CUMENE 98-82-8	.1 - 1	= 1400 mg/kg Oral LD50 Rat = 39000 mg/m ³ Inhalation LC50 Rat 4 h > 3160 mg/kg Dermal LD50 Rabbit
FORMALDEHYDE 50-00-0	0 - .099	= 0.578 mg/L Inhalation LC50 Rat 4 h = 500 mg/kg Oral LD50 Rat

Mutagens/Teratogens/Carcinogens:

Possible mutagen

Cancer hazard. Contains material which can cause cancer. Possible cancer hazard. Contains material which may cause cancer based on animal data.

Contains ethylbenzene, which has been determined by NTP to be an animal carcinogen with no known relevance to humans. IARC has classified ethylbenzene as possibly carcinogenic to humans (2b) on the basis of sufficient evidence of carcinogenicity in laboratory animals but inadequate evidence of cancer in humans.

Ingredient Name CAS-No.	Approx. Weight %	California Prop 65 - Reproductive (Female)	California Prop 65 - Carcinogen
ETHYLBENZENE 100-41-4	.1 - 1		Listed. initial date 6/11/04 - carcinogen
CUMENE 98-82-8	.1 - 1		carcinogen, initial date 4/6/10
FORMALDEHYDE 50-00-0	0 - .099		Listed. initial date 1/1/88 - carcinogen

Ingredient Name CAS-No.	Approx. Weight %	IARC Group 1 - Human Evidence	IARC Group 2A - Limited Human Data	IARC Group 2B - Sufficient Animal Data
ETHYLBENZENE 100-41-4	.1 - 1			Monograph 77 [2000]
CUMENE 98-82-8	.1 - 1			Monograph 101 [in preparation]
FORMALDEHYDE 50-00-0	0 - .099	Supplement 7 [1987] Monograph 62 [1995] Supplement 7 [1987]		

Ingredient Name CAS-No.	Approx. Weight %	NTP Known Carcinogens	NTP Suspect Carcinogens
FORMALDEHYDE 50-00-0	0 - .099		Reasonably Anticipated To Be A Human Carcinogen

Ingredient Name CAS-No.	Approx. Weight %	OSHA - Hazard Communication Carcinogens	OSHA - Specifically Regulated Carcinogens	ACGIH Carcinogens
ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2	10 - 15			A3 Confirmed Animal Carcinogen with Unknown Relevance to Humans
CYCLOHEXANONE 108-94-1	5 - 10			A3 Confirmed Animal Carcinogen with Unknown Relevance to Humans
ETHYLBENZENE 100-41-4	.1 - 1	Present		A3 Confirmed Animal Carcinogen with Unknown Relevance to Humans
FORMALDEHYDE 50-00-0	0 - .099	Present	Irritant and potential cancer hazard - see 29 CFR 1910.1048	A2 Suspected Human Carcinogen

12. ECOLOGICAL DATA

No information on ecology is available.

13. DISPOSAL CONSIDERATIONS

Disposal should be made in accordance with federal, state and local regulations.

14. TRANSPORTATION INFORMATION

U.S. Department of Transportation

UN ID Number (msds):	UN1263
Proper Shipping Name:	PAINT
Hazard Class:	COMBUSTIBLE LIQUID
Packing Group:	III

U.S Hazmat and/or International DG shipment exceptions

The supplier may apply one of the following exceptions: Combustible Liquid, Consumer Commodity, Limited Quantity, Viscous Liquid, Does Not Sustain Combustion, or others, as allowed under 49CFR Hazmat Regulations. Please consult 49CFR Subchapter C to ensure that subsequent shipments comply with these exceptions.

Reportable Quantity Description:

International Air Transport Association (IATA):

UN/ID No:	UN1263
Proper shipping name:	Paint
Hazard Class:	3
Packing Group:	III

International Maritime Organization (IMO):

UN/ID No:	UN1263
Proper shipping name:	PAINT
Hazard Class:	3
Packing Group:	III
Marine Pollutant	No

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

Ingredient Name CAS-No.	Approx. Weight %	SARA 302	SARA 313	CERCLA RQ in lbs.
ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2	10 - 15		YES	
CYCLOHEXANONE 108-94-1	5 - 10			5000
N-BUTYL ALCOHOL 71-36-3	5 - 10		form R reporting required for 1.0% de minimis concentration	5000
1,2,4-TRIMETHYLBENZENE 95-63-6	5 - 10		Listed.	
XYLENE 1330-20-7	1 - 5		form R reporting required for 1.0% de minimis concentration	100
ETHYLBENZENE 100-41-4	.1 - 1		form R reporting required for 1.0% de minimis concentration	1000
CUMENE 98-82-8	.1 - 1		form R reporting required for 1.0% de minimis concentration	5000
FORMALDEHYDE 50-00-0	0 - .099	EPCRA RQ = 100 lb	form R reporting required for 0.1% de minimis concentration	100

SARA 311/312 Hazard Class:

Acute:	yes
Chronic:	yes
Flammability:	yes
Reactivity:	no
Sudden Pressure:	no

U.S. STATE REGULATIONS:**Right to Know:**

The specific chemical identity of a component may be withheld as a trade secret under 34 Pennsylvania Code, Chapter 317.

Pennsylvania Right To Know:

N-BUTYL ALCOHOL	71-36-3	
ETHYLENE GLYCOL MONOBUTYL ETHER		111-76-2
PROPYLENEGLYCOL MONOMETHYL ETHER ACETATE		108-65-6
FORMALDEHYDE	50-00-0	
XYLENE	1330-20-7	
CYCLOHEXANONE	108-94-1	
AROMATIC NAPHTHA, LIGHT	64742-95-6	
1,2,4-TRIMETHYLBENZENE	95-63-6	

Additional Non-Hazardous Materials

PROPRIETARY RESIN	Trade Secret
PROPRIETARY RESIN	Trade Secret

California Proposition 65:

WARNING: This product contains chemicals known to the State of California to cause cancer.

Rule 66 status of product

Photochemically reactive.

INTERNATIONAL REGULATIONS - Chemical Inventories**US TSCA Inventory:**

All components of this product are in compliance with U.S. TSCA Chemical Substance Inventory Requirements.

Canada Domestic Substances List:

All components of this product are listed on the Domestic Substances List.

16. OTHER INFORMATION**HMIS Codes**

Health:	2*
Flammability:	2
Reactivity:	1
PPE:	X - See Section 8 for Personal Protective Equipment (PPE).

Abbreviations:

OSHA - Occupational Safety and Health Administration, IARC - International Agency for Research on Cancer, NIOSH - National Institute of Occupational Safety and Health, NTP - National Toxicology Program, ACGIH - American Conference of Governmental Industrial Hygienists, SCAQMD - South Coast Air Quality Management District, TSCA - Toxic Substances Control Act, IATA - International Air Transport Association, IMO - International Maritime Organization, DOT - Department of Transportation, NA - Not applicable, NOT ESTAB - Not established, N.A.V. - Not available, RQ - Reportable quantity, WT - Weight, MG/CU M - Milligrams per cubic meter, G/L - Grams per liter, MM - Millimeters, MPPCF - Millions of particles per cubic foot, PPM - parts per million, PPT - parts per thousand, TCC/PM - Tag closed cup / Pensky-Martens, PB - Lead, PEL - Permissible exposure level, TWA - Time Weighted Average, STEL - Short term exposure limit, C - Celsius, F - Fahrenheit.

Disclaimer:

The data on this sheet represent typical values. Since application variables are a major factor in product performance, this information should serve only as a general guide. Valspar assumes no obligation or liability for use of this information. UNLESS VALSPAR AGREES OTHERWISE IN WRITING, VALSPAR MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AND DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR FREEDOM FROM PATENT INFRINGEMENT. VALSPAR WILL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES. Your only remedy for any defect in this product is the replacement of the defective product, or a refund of its purchase price, at our option. This MSDS contains additional information required by the state of Pennsylvania.

Preparation Information:

Prepared By:	Regulatory Affairs Department
Print date:	03/Jun/2014
Revision Date:	02/Jun/2014

valspar

PACKAGING

2001 Tracy Street
Pittsburgh, PA 15233
Tel 412-766-9300
Fax 412-766-8953

Volatile Composition Report

(Data based on formulation)

Valspar Code: 9851579

CAS Number	Component	Weight Percent	Weight/Gallon	HAP
64742-95-6	AROMATIC NAPHTHA, LIGHT	13.4	7.25	
108-65-6	PROPYLENE GLYCOL MONO METHYL ETHER ACETATE	11.9	8.06	
111-76-2	ETHYLENE GLYCOL MONOBUTYL ETHER	10.5	7.51	
108-94-1	CYCLOHEXANONE	8.9	7.89	
71-36-3	BUTANOL	8.5	6.75	
95-63-6	1,2,4-TRIMETHYLBENZENE	6.6	8.30	
1330-20-7	XYLENE	2.9	7.23	✓
100-41-4	BENZENE, ETHYL	0.6	7.25	✓
78-93-3	METHYL ETHYL KETONE	0.5	6.71	
95-93-2	1,2,4,5-TETRAMETHYLBENZENE	0.3	7.20	
98-82-8	CUMENE	0.2	8.00	✓
		SUM:	64.3	

Lbs HAP per gallon of solids: 1.03

HAP Total Weight%: 3.7

9/21/2016



Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product ID: 9851615
Product Name: 9851615 GOLD EPOXY
Product Use: Paint product.
Print date: 03/Jan/2013
Revision Date: 03/Jan/2013

Company Identification

The Valspar Corporation - Packaging Division
2001 Tracy St.
Pittsburgh, PA 15233

Manufacturer's Phone: 1-412-766-9300

24-Hour Medical Emergency Phone: 1-888-345-5732

2. HAZARDS IDENTIFICATION

Primary Routes of Exposure:

Inhalation
Ingestion
Skin absorption

Eye Contact:

- Severe eye irritation
- Risk of serious damage to eyes.

Skin Contact:

- Causes skin irritation.
- Dermatitis
- May cause defatting of the skin.
- Harmful if absorbed through skin.
- Can be absorbed through skin.
- May cause sensitization by skin contact.

Ingestion:

- Irritation of the mouth, throat, and stomach.
- Harmful if swallowed.
- Aspiration hazard if swallowed - can enter lungs and cause damage.

Inhalation:

- Causes respiratory tract irritation.
- Harmful by inhalation.
- May cause damage to nasal and respiratory passages.
- May cause bronchopneumonia or bronchitis.
- May cause pulmonary edema.
- May cause sensitization by inhalation.
- May cause chemical pneumonia.

Target Organ and Other Health Effects:

- Kidney injury may occur.
- Spleen damage may occur.
- Blood disorders
- Causes headache, drowsiness or other effects to the central nervous system.
- Liver injury may occur.
- Hearing loss.
- Unconsciousness
- Risk of serious damage to the lungs (by inhalation).
- Contains glycol ether which has been shown to cause blood effects damage in laboratory animals.

This product contains ingredients that may contribute to the following potential chronic health effects:

- Notice: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.
- Possible sensitization.
- Contains formaldehyde which is considered a potential carcinogen by the Occupational Health and Safety Administration.

Carcinogens:

- Cancer hazard. Contains material which can cause cancer.
- Possible cancer hazard. Contains material which may cause cancer based on animal data.

3. COMPOSITION / INFORMATION ON HAZARDOUS INGREDIENTS

Ingredient Name CAS-No.	Approx. Weight %	Chemical Name
AROMATIC NAPHTHA, LIGHT 64742-95-6	10 - 15	Petroleum naphtha, light aromatic
PROPYLENEGLYCOL MONOMETHYL ETHER ACETATE 108-65-6	10 - 15	2-methoxy-1-methylethyl acetate
ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2	10 - 15	2-Butoxyethanol
CYCLOHEXANONE 108-94-1	5 - 10	Cyclohexanone

3. COMPOSITION / INFORMATION ON HAZARDOUS INGREDIENTS

N-BUTYL ALCOHOL 71-36-3	5 - 10	n-Butyl alcohol
1,2,4-TRIMETHYLBENZENE 95-63-6	5 - 10	1,2,4-Trimethylbenzene
METHYL ETHYL KETONE 78-93-3	1 - 5	Methyl ethyl ketone
XYLENE 1330-20-7	1 - 5	Xylenes (o-, m-, p- isomers)
ETHYLBENZENE 100-41-4	1 - 1	Ethyl benzene
CUMENE 98-82-8	1 - 1	Cumene
FORMALDEHYDE 50-00-0	0 - .099	Formaldehyde

If this section is blank there are no hazardous components per OSHA guidelines.

4. FIRST AID MEASURES

Eye Contact:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. If medical assistance is not immediately available, flush an additional 15 minutes. Get medical attention immediately.

Skin Contact:

Remove contaminated clothing and shoes. Wash off immediately with plenty of water for at least 15 minutes. Get medical attention, if symptoms develop or persist.

Ingestion:

Rinse mouth with water. Give one or two glasses of water. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. If vomiting occurs, keep head lower than hips to prevent aspiration. Get medical attention immediately.

Inhalation:

Move injured person into fresh air and keep person calm under observation. Get medical attention immediately. For breathing difficulties, oxygen may be necessary. If breathing stops, provide artificial respiration. Place unconscious person on the side in the recovery position and ensure breathing.

Medical conditions aggravated by exposure:

Any respiratory or skin condition.

5. FIRE FIGHTING MEASURES

Flash point (Fahrenheit):	83
Flash point (Celsius):	28
Lower explosive limit (%):	1
Upper explosive limit (%):	21
Autoignition temperature:	not determined
Sensitivity to impact:	no
Sensitivity to static discharge:	Subject to static discharge hazards. Please see bonding and grounding information in Section 7.
Hazardous combustion products:	See Section 10.

Unusual fire and explosion hazards:

None known.

Extinguishing media:

Carbon dioxide, dry chemical, foam and/or water fog.

Fire fighting procedures:

Firefighters should be equipped with self-contained breathing apparatus and turn out gear. Keep containers and surroundings cool with water spray.

6. ACCIDENTAL RELEASE MEASURES

Action to be taken if material is released or spilled:

Ventilate the area. Avoid breathing dust or vapor. Use self-containing breathing apparatus or airmask for large spills in a confined area. Wipe, scrape or soak up in an inert material and put in a container for disposal. See section 7, "Handling and Storage", for proper container and storage procedures. Remove all sources of ignition. Soak up with inert absorbent material. Use only non-sparking tools. Avoid contact with eyes.

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage:

Keep away from heat, sparks and open flame. - No smoking. Keep container closed when not in use. Do not store above 120 degrees F. (49 degrees C). Based on flash point and vapor pressure, suitable storage should be provided in accordance with OSHA regulation 1910.106, Ontario OH&S regulation 851 section 22. Empty containers may contain product residue, including flammable or explosive vapors. Do not cut, puncture or weld on or near container. All label warnings must be observed until the container has been commercially cleaned or reconditioned. If the product is used near or above the flashpoint, an ignition hazard may be present. Activities, uses, or operations which liberate vapor (such as mixing or free fall of liquids) may also present an ignition hazard. Please ensure containers and other interconnected equipment are properly bonded and grounded at all times.

8. PERSONAL PROTECTIVE EQUIPMENT AND EXPOSURE CONTROLS

Personal Protective Equipment**Eye and face protection:**

Wear chemical goggles with splash shields or face shield. Contact lenses should not be worn when working with chemicals because contact lenses may contribute to the severity of an eye injury in case of exposure.

Skin protection:

Appropriate chemical resistant gloves should be worn.

Other Personnel Protection Data:

To prevent skin contact wear protective clothing covering all exposed areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Respiratory protection:

If exposure cannot be controlled below applicable limits, use the appropriate NIOSH approved respirator such as an air purifying respirator with organic vapor cartridge and dust/mist filter. Consult the respirator manufacturer's literature to ensure that the respirator will provide adequate protection. Read and follow all respirator manufacturer's instructions.

Ventilation

Use only in well-ventilated areas. Ensure adequate ventilation, especially in confined areas. Ovens used for curing should contain a fresh air purge to prevent vapours from accumulating and creating a possible explosive mixture. Where the product is used in a hazardous classified area, use explosion-proof electrical/ventilating/lighting/equipment.

Exposure Guidelines**OSHA Permissible Exposure Limits (PEL's)**

Ingredient Name CAS-No.	Approx. Weight %	TWA (final)	Ceilings limits (final)	Skin designations
ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2	10 - 15	240 mg/m ³ TWA 50 ppm TWA		prevent or reduce skin absorption

Ingredient Name CAS-No.	Approx. Weight %	TWA (final)	Ceilings limits (final)	Skin designations
CYCLOHEXANONE 108-94-1	5 - 10	200 mg/m ³ TWA 50 ppm TWA		
N-BUTYL ALCOHOL 71-36-3	5 - 10	100 ppm TWA 300 mg/m ³ TWA		
METHYL ETHYL KETONE 78-93-3	1 - 5	200 ppm TWA 590 mg/m ³ TWA		
XYLENE 1330-20-7	1 - 5	100 ppm TWA 435 mg/m ³ TWA		
ETHYLBENZENE 100-41-4	.1 - 1	100 ppm TWA 435 mg/m ³ TWA		
CUMENE 98-82-8	.1 - 1	245 mg/m ³ TWA 50 ppm TWA		prevent or reduce skin absorption
FORMALDEHYDE 50-00-0	0 - .099	0.75 ppm TWA		

ACGIH Threshold Limit Value (TLV's)

Ingredient Name CAS-No.	Approx. Weight %	TWA	STEL	Ceiling limits	Skin designations
ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2	10 - 15	20 ppm TWA			
CYCLOHEXANONE 108-94-1	5 - 10	20 ppm TWA	50 ppm STEL		CAN BE ABSORBED THROUGH THE SKIN
N-BUTYL ALCOHOL 71-36-3	5 - 10	20 ppm TWA			
1,2,4-TRIMETHYLBENZENE 95-63-6	5 - 10	25 PPM			
METHYL ETHYL KETONE 78-93-3	1 - 5	200 ppm TWA	300 ppm STEL		
XYLENE 1330-20-7	1 - 5	100 ppm TWA	150 ppm STEL		
ETHYLBENZENE 100-41-4	.1 - 1	100 ppm TWA	125 ppm STEL		
CUMENE 98-82-8	.1 - 1	50 ppm TWA			
FORMALDEHYDE 50-00-0	0 - .099			0.3 ppm Ceiling	

9. PHYSICAL PROPERTIES

Odor:	Normal for this product type.
Physical State:	liquid
pH:	not determined
Vapor pressure:	90.2255639 mmHg @ 77°F (25°C)
Vapor density (air = 1.0):	4.6
Boiling point:	175.28°F (80°C)
Solubility in water:	not determined
Coefficient of water/oil distribution:	not determined
Density (lbs per US gallon):	8.19
Specific Gravity:	.98

9. PHYSICAL PROPERTIES

Evaporation rate (butyl acetate = 1.0):	5.7
Flash point (Fahrenheit):	83
Flash point (Celsius):	28
Lower explosive limit (%):	1
Upper explosive limit (%):	21
Autoignition temperature:	not determined

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	Heat.
Incompatibility:	Strong oxidizing agents
Hazardous Polymerization:	None anticipated.
Hazardous Decomposition Products:	Carbon monoxide and carbon dioxide.

Sensitivity to static discharge:	Subject to static discharge hazards. Please see bonding and grounding information in Section 7.
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11. TOXICOLOGICAL INFORMATION

Ingredient Name CAS-No.	Approx. Weight %	NIOSH - Selected LD50s and LC50s
AROMATIC NAPHTHA, LIGHT 64742-95-6	10 - 15	= 3400 ppm Inhalation LC50 Rat 4 h = 8400 mg/kg Oral LD50 Rat > 2000 mg/kg Dermal LD50 Rabbit > 5.2 mg/L Inhalation LC50 Rat 4 h
PROPYLENEGLYCOL MONOMETHYL ETHER ACETATE 108-65-6	10 - 15	= 8532 mg/kg Oral LD50 Rat > 5000 mg/kg Dermal LD50 Rabbit
ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2	10 - 15	= 2.21 mg/L Inhalation LC50 Rat 4 h = 220 mg/kg Dermal LD50 Rabbit = 2270 mg/kg Dermal LD50 Rat = 450 ppm Inhalation LC50 Rat 4 h = 470 mg/kg Oral LD50 Rat
CYCLOHEXANONE 108-94-1	5 - 10	= 10.7 mg/L Inhalation LC50 Rat 4 h = 800 mg/kg Oral LD50 Rat = 8000 ppm Inhalation LC50 Rat 4 h = 948 mg/kg Dermal LD50 Rabbit
N-BUTYL ALCOHOL 71-36-3	5 - 10	= 3400 mg/kg Dermal LD50 Rabbit = 790 mg/kg Oral LD50 Rat = 8000 ppm Inhalation LC50 Rat 4 h > 17.7 mg/L Inhalation LC50 Rat 4 h
1,2,4-TRIMETHYLBENZENE 95-63-6	5 - 10	= 18 g/m ³ Inhalation LC50 Rat 4 h = 3400 mg/kg Oral LD50 Rat > 3160 mg/kg Dermal LD50 Rabbit
METHYL ETHYL KETONE 78-93-3	1 - 5	= 2737 mg/kg Oral LD50 Rat = 32 g/m ³ Inhalation LC50 Mouse 4 h = 6480 mg/kg Dermal LD50 Rabbit
XYLENE 1330-20-7	1 - 5	= 4300 mg/kg Oral LD50 Rat = 47635 mg/L Inhalation LC50 Rat 4 h = 5000 ppm Inhalation LC50 Rat 4 h > 1700 mg/kg Dermal LD50 Rabbit
ETHYLBENZENE 100-41-4	1 - 1	= 15354 mg/kg Dermal LD50 Rabbit = 17.2 mg/L Inhalation LC50 Rat 4 h = 3500 mg/kg Oral LD50 Rat

11. TOXICOLOGICAL INFORMATION

CUMENE 98-82-8	.1 - 1	= 1400 mg/kg Oral LD50 Rat = 39000 mg/m ³ Inhalation LC50 Rat 4 h > 3160 mg/kg Dermal LD50 Rabbit
FORMALDEHYDE 50-00-0	0 - .099	= 0.578 mg/L Inhalation LC50 Rat 4 h = 500 mg/kg Oral LD50 Rat

Mutagens/Teratogens/Carcinogens:

Possible mutagen

Cancer hazard. Contains material which can cause cancer. Possible cancer hazard. Contains material which may cause cancer based on animal data.

Contains ethylbenzene, which has been determined by NTP to be an animal carcinogen with no known relevance to humans. IARC has classified ethylbenzene as possibly carcinogenic to humans (2b) on the basis of sufficient evidence of carcinogenicity in laboratory animals but inadequate evidence of cancer in humans.

Ingredient Name CAS-No.	Approx. Weight %	California Prop 65 - Reproductive (Female)	California Prop 65 - Carcinogen
ETHYLBENZENE 100-41-4	.1 - 1		Listed. initial date 6/11/04 - carcinogen
CUMENE 98-82-8	.1 - 1		carcinogen, initial date 4/6/10
FORMALDEHYDE 50-00-0	0 - .099		Listed. initial date 1/1/88 - carcinogen

Ingredient Name CAS-No.	Approx. Weight %	IARC Group 1 - Human Evidence	IARC Group 2A - Limited Human Data	IARC Group 2B - Sufficient Animal Data
ETHYLBENZENE 100-41-4	.1 - 1			Monograph 77 [2000]
CUMENE 98-82-8	.1 - 1			Monograph 101 [in preparation]
FORMALDEHYDE 50-00-0	0 - .099	Supplement 7 [1987] Monograph 62 [1995] Supplement 7 [1987]		

Ingredient Name CAS-No.	Approx. Weight %	NTP Known Carcinogens	NTP Suspect Carcinogens	NTP Evidence of Carcinogenicity
ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2	10 - 15			male rat-no evidence; female rat-equivocal evidence; male mice- some evidence; female mice-some evidence
XYLENE 1330-20-7	1 - 5			male rat-no evidence; female rat-no evidence; male mice-no evidence; female mice-no evidence
ETHYLBENZENE 100-41-4	.1 - 1			male rat-clear evidence; female rat-some evidence; male mice- some evidence; female mice-some evidence
CUMENE 98-82-8	.1 - 1			male rat-clear evidence; female rat-some evidence; male mice- clear evidence; female mice-clear evidence

Ingredient Name CAS-No.	Approx. Weight %	NTP Known Carcinogens	NTP Suspect Carcinogens	NTP Evidence of Carcinogenicity
FORMALDEHYDE 50-00-0	0 - .099		Reasonably Anticipated To Be A Human Carcinogen	

Ingredient Name CAS-No.	Approx. Weight %	OSHA - Hazard Communication Carcinogens	OSHA - Specifically Regulated Carcinogens	ACGIH Carcinogens
ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2	10 - 15			A3 Confirmed Animal Carcinogen with Unknown Relevance to Humans
CYCLOHEXANONE 108-94-1	5 - 10			A3 Confirmed Animal Carcinogen with Unknown Relevance to Humans
ETHYLBENZENE 100-41-4	.1 - 1	Present		A3 Confirmed Animal Carcinogen with Unknown Relevance to Humans
FORMALDEHYDE 50-00-0	0 - .099	Present	Irritant and potential cancer hazard - see 29 CFR 1910.1048	A2 Suspected Human Carcinogen

12. ECOLOGICAL DATA

No information on ecology is available.

13. DISPOSAL CONSIDERATIONS

Disposal should be made in accordance with federal, state and local regulations.

14. TRANSPORTATION INFORMATION

U.S. Department of Transportation

UN ID Number (msds): UN1263
Proper Shipping Name: PAINT
Hazard Class: 3
Packing Group: III

U.S Hazmat and/or International DG shipment exceptions

The supplier may apply one of the following exceptions: Combustible Liquid, Consumer Commodity, Limited Quantity, Viscous Liquid, Does Not Sustain Combustion, or others, as allowed under 49CFR Hazmat Regulations. Please consult 49CFR Subchapter C to ensure that subsequent shipments comply with these exceptions.

Reportable Quantity Description:

International Air Transport Association (IATA):

UN ID Number (msds): UN1263
Proper Shipping Name: Paint
Hazard Class: 3
Packing Group: III

International Maritime Organization (IMO):

IMO UN/ID Number (msds): UN1263
Proper Shipping Name: PAINT

Hazard Class: 3
Packing Group: III

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

Ingredient Name CAS-No.	Approx. Weight %	SARA 302	SARA 313	CERCLA RQ in lbs.
ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2	10 - 15		YES	
CYCLOHEXANONE 108-94-1	5 - 10			5000
N-BUTYL ALCOHOL 71-36-3	5 - 10		form R reporting required for 1.0% de minimis concentration	5000
1,2,4-TRIMETHYLBENZENE 95-63-6	5 - 10		Listed.	
METHYL ETHYL KETONE 78-93-3	1 - 5			5000
XYLENE 1330-20-7	1 - 5		form R reporting required for 1.0% de minimis concentration	100
ETHYLBENZENE 100-41-4	.1 - 1		form R reporting required for 1.0% de minimis concentration	1000
CUMENE 98-82-8	.1 - 1		form R reporting required for 1.0% de minimis concentration	5000
FORMALDEHYDE 50-00-0	0 - .099	EPCRA RQ = 100 lb	form R reporting required for 0.1% de minimis concentration	100

SARA 311/312 Hazard Class:

Acute: yes
Chronic: yes
Flammability: yes
Reactivity: no
Sudden Pressure: no

U.S. STATE REGULATIONS:

Right to Know:

The specific chemical identity of a component may be withheld as a trade secret under 34 Pennsylvania Code, Chapter 317.

Pennsylvania Right To Know:

FORMALDEHYDE	50-00-0	
N-BUTYL ALCOHOL	71-36-3	
ETHYLENE GLYCOL MONOBUTYL ETHER		111-76-2
PROPYLENEGLYCOL MONOMETHYL ETHER ACETATE		108-65-6
CYCLOHEXANONE	108-94-1	
XYLENE	1330-20-7	
AROMATIC NAPHTHA, LIGHT		64742-95-6
1,2,4-TRIMETHYLBENZENE	95-63-6	
METHYL ETHYL KETONE	78-93-3	

Additional Non-Hazardous Materials

PROPRIETARY RESIN	Trade Secret
PROPRIETARY RESIN	Trade Secret
PROPRIETARY RESIN	Trade Secret

California Proposition 65:

WARNING: This product contains chemicals known to the State of California to cause cancer.

Rule 66 status of product

Photochemically reactive.

INTERNATIONAL REGULATIONS - Chemical Inventories

US TSCA Inventory:

All components of this product are in compliance with U.S. TSCA Chemical Substance Inventory Requirements.

Canada Domestic Substances List:

All components of this product are listed on the Domestic Substances List.

16. OTHER INFORMATION

HMIS Codes

Health:	2*
Flammability:	3
Reactivity:	1
PPE:	X - See Section 8 for Personal Protective Equipment (PPE).

Abbreviations:

OSHA - Occupational Safety and Health Administration, IARC - International Agency for Research on Cancer, NIOSH - National Institute of Occupational Safety and Health, NTP - National Toxicology Program, ACGIH - American Conference of Governmental Industrial Hygienists, SCAQMD - South Coast Air Quality Management District, TSCA - Toxic Substances Control Act, IATA - International Air Transport Association, IMO - International Maritime Organization, DOT - Department of Transportation, NA - Not applicable, NOT ESTAB - Not established, N.A.V. - Not available, RQ - Reportable quantity, WT - Weight, MG/CU M - Milligrams per cubic meter, G/L - Grams per liter, MM - Millimeters, MPPCF - Millions of particles per cubic foot, PPM - parts per million, PPT - parts per thousand, TCC/PM - Tag closed cup / Pensky-Martens, PB - Lead, PEL - Permissible exposure level, TWA - Time Weighted Average, STEL - Short term exposure limit, C - Celsius, F - Fahrenheit.

Disclaimer:

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Preparation Information:

Prepared By:

Regulatory Affairs Department

Print date:

03/Jan/2013

Revision Date:

03/Jan/2013

valspar

PACKAGING

2001 Tracy Street
Pittsburgh, PA 15233
Tel 412-766-9300
Fax 412-766-8953

Volatile Composition Report

(Data based on formulation)

Valspar Code: 9851615

CAS Number	Component	Weight Percent	Weight/ Gallon	HAP
64742-95-6	AROMATIC NAPHTHA, LIGHT	12.1	7.25	
108-65-6	PROPYLENE GLYCOL MONO METHYL ETHER ACETATE	10.8	8.06	
111-76-2	ETHYLENE GLYCOL MONOBUTYL ETHER	9.6	7.51	
108-94-1	CYCLOHEXANONE	8.6	7.89	
71-36-3	BUTANOL	7.9	6.75	
95-63-6	1,2,4-TRIMETHYLBENZENE	6.0	8.30	
78-93-3	METHYL ETHYL KETONE	3.2	6.71	
1330-20-7	XYLENE	2.3	7.23	✓
100-41-4	BENZENE, ETHYL	0.4	7.25	✓
95-93-2	1,2,4,5-TETRAMETHYLBENZENE	0.3	7.20	
98-82-8	CUMENE	0.2	8.00	✓
110-54-3	HEXANE	0.1	5.62	✓
		SUM:	61.5	

Lbs HAP per gallon of solids: 0.77**HAP Total Weight%: 3.0**

9/21/2016

1. Identification

Product identifier

Other means of identification

Product code

Recommended use

Recommended restrictions

Manufacturer

AKA: SC 1645

L-1645 Solvent Blend

0301733

Solvent

None known.

Superior Oil Company, Inc.
1402 North Capitol Avenue, Suite #100
Indianapolis, IN 46202
US
Information (317) 781-4400
Emergency (317) 781-4400

Distributed by:

SAL Chemical

3036 Birch Drive,
Weirton, WV 26062
304.748.8200 - Phone
304.797.8751 - Fax

2. Hazard(s) identification

Physical hazards

Flammable liquids

Category 3

Health hazards

Acute toxicity, oral

Category 4

Skin corrosion/irritation

Category 2

Serious eye damage/eye irritation

Category 2

Carcinogenicity

Category 1B

Specific target organ toxicity, single exposure

Category 3 respiratory tract irritation

Specific target organ toxicity, single exposure

Category 3 narcotic effects

Specific target organ toxicity, repeated exposure

Category 2

Environmental hazards

Not classified.

OSHA defined hazards

Not classified.

Label elements



Signal word

DANGER!

Hazard statement

H226

Flammable liquid and vapor.

H302

Harmful if swallowed.

H315

Causes skin irritation.

H319

Causes serious eye irritation.

H335

May cause respiratory irritation.

H336

May cause drowsiness or dizziness.

H350

May cause cancer.

H373

May cause damage to organs through prolonged or repeated exposure.

Prevention

P202 - Do not handle until all safety precautions have been read and understood.

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P271 - Use outdoors only or in a well-ventilated area.

P233 - Keep container tightly closed.

P240 - Ground/bond container and receiving equipment.

P241 - Use explosion-proof electrical/ventilating/lighting equipment.

P242 - Use only non-sparking tools.

P243 - Take precautionary measures against static discharge.

P261 - Avoid breathing vapors or mist

P264 - Wash hands thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

Response	P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P332 + P313 - If skin irritation occurs: Get medical advice/attention. P304 + P340 - If INHALED: Remove person to fresh air and keep comfortable for breathing. P308 + P313 - If exposed or concerned: Get medical advice/attention. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice/attention. P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P310 - Immediately call a poison center/doctor. P370 + P378 - In case of fire: Use appropriate media to extinguish.
Storage	P403 + P233 - Store in a well-ventilated place. Keep container tightly closed. P403 + P235 - Store in a well-ventilated place. Keep cool.
Disposal	P501 - Dispose of contents/container in accordance with local/regional/national/international regulations.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Light Aromatic Solvent Naphtha		64742-95-6	40-60
2-Butoxyethanol		111-76-2	30-50
1,2,4-Trimethylbenzene		95-63-6	20-40
Cumene		98-82-8	0.1-10
Xylene (Mixed Isomers)		1330-20-7	0.1-10

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire-fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Flammable liquid and vapor.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Use water spray to reduce vapors or divert vapor cloud drift. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground.

Environmental precautions

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Vapors may form explosive mixtures with air. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist or vapor. Do not get this material in contact with skin. Do not taste or swallow. Avoid contact with eyes. Avoid prolonged exposure. Avoid contact with clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Keep in an area equipped with sprinklers.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
2-Butoxyethanol (CAS 111-76-2)	PEL	240 mg/m3
Cumene (CAS 98-82-8)	PEL	50 ppm 245 mg/m3
Xylene (Mixed Isomers) (CAS 1330-20-7)	PEL	50 ppm 435 mg/m3
		100 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
1,2,4-Trimethylbenzene (CAS 95-63-6)	TWA	25 ppm
2-Butoxyethanol (CAS 111-76-2)	TWA	20 ppm
Cumene (CAS 98-82-8)	TWA	50 ppm
Xylene (Mixed Isomers) (CAS 1330-20-7)	STEL	150 ppm
	TWA	100 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
1,2,4-Trimethylbenzene (CAS 95-63-6)	TWA	125 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
2-Butoxyethanol (CAS 111-76-2)	TWA	25 ppm 24 mg/m3
Cumene (CAS 98-82-8)	TWA	5 ppm 245 mg/m3 50 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
2-Butoxyethanol (CAS 111-76-2)	200 mg/g	Butoxyacetic acid (BAA), with hydrolysis	Creatinine in urine	*
Xylene (Mixed Isomers) (CAS 1330-20-7)	1.5 g/g	Methylhippuric acids	Creatinine in urine	*

* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

2-Butoxyethanol (CAS 111-76-2)	Can be absorbed through the skin.
Cumene (CAS 98-82-8)	Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

2-Butoxyethanol (CAS 111-76-2)	Skin designation applies.
Cumene (CAS 98-82-8)	Skin designation applies.

US - Tennessee OELs: Skin designation

2-Butoxyethanol (CAS 111-76-2)	Can be absorbed through the skin.
Cumene (CAS 98-82-8)	Can be absorbed through the skin.

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

2-Butoxyethanol (CAS 111-76-2)	Can be absorbed through the skin.
Cumene (CAS 98-82-8)	Can be absorbed through the skin.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

2-Butoxyethanol (CAS 111-76-2)	Can be absorbed through the skin.
Cumene (CAS 98-82-8)	Can be absorbed through the skin.

Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Hand protection Wear appropriate chemical resistant gloves.

Skin protection

Other Wear appropriate chemical resistant clothing.

Respiratory protection If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

General hygiene considerations

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	Clear.
Physical state	Liquid.
Form	Liquid.
Color	Colorless.
Odor	Typical Solvent.
pH	Not available.

Melting point/freezing point	Not determined
Initial boiling point and boiling range	321.8 °F (161 °C) estimated
Flash point	107.6 °F (42.0 °C) estimated
Evaporation rate	< 1 (BuAc = 1)
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	0.9 % estimated
Flammability limit - upper (%)	10.6 % estimated
Vapor pressure	2.07 hPa (1 hPa = 0.75006 mmHg)
Vapor pressure temp.	@ 20 Deg. C
Vapor density	> 1 (Air = 1)
Solubility(ies)	
Solubility (water)	Appreciable
Auto-ignition temperature	Not determined
Other information	
Percent volatile	100 %
Pounds per gallon	7.35 lb/gal
Specific gravity	0.882
VOC (Weight %)	100 %

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	No hazardous reaction known under normal conditions of use.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Suitable precautions should be utilized if using this product at temperatures above the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizers and strong acids.
Hazardous decomposition products	No hazardous decomposition products are known if stored and applied as directed.

11. Toxicological information

Information on likely routes of exposure

Ingestion	Harmful if swallowed.
Inhalation	Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Prolonged inhalation may be harmful. May cause damage to organs by inhalation. May cause irritation to the respiratory system.
Skin contact	Causes skin irritation. 2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.
Eye contact	Causes serious eye irritation.
Symptoms related to the physical, chemical and toxicological characteristics	Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Information on toxicological effects

Acute toxicity

Harmful if swallowed. Narcotic effects. May cause respiratory irritation. Expected to be a low hazard for usual industrial or commercial handling by trained personnel.

Components	Species	Test Results
1,2,4-Trimethylbenzene (CAS 95-63-6)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 3160 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 2000 ppm, 48 Hours
<i>Oral</i>		
LD50	Rat	6 g/kg
2-Butoxyethanol (CAS 111-76-2)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	400 mg/kg
<i>Inhalation</i>		
LC50	Mouse	700 ppm, 7 Hours
	Rat	450 ppm, 4 Hours
<i>Oral</i>		
LD50	Guinea pig	1.2 g/kg
	Mouse	1.2 g/kg
	Rabbit	0.32 g/kg
	Rat	560 mg/kg
<i>Other</i>		
LD50	Mouse	1130 mg/kg
	Rabbit	280 mg/kg
	Rat	340 mg/kg
Cumene (CAS 98-82-8)		
Acute		
<i>Inhalation</i>		
LC50	Mouse	2000 ppm, 7 Hours
		24.7 mg/l, 2 Hours
	Rat	8000 ppm, 4 Hours
<i>Oral</i>		
LD50	Rat	1400 mg/kg
Xylene (Mixed Isomers) (CAS 1330-20-7)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 43 g/kg
<i>Inhalation</i>		
LC50	Mouse	3907 mg/l, 6 Hours
	Rat	6350 mg/l, 4 Hours
<i>Oral</i>		
LD50	Mouse	1590 mg/kg
	Rat	3523 - 8600 mg/kg
<i>Other</i>		
LD50	Rat	3.8 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitization**Respiratory sensitization** Not available.**Skin sensitization** This product is not expected to cause skin sensitization.**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.**Carcinogenicity** May cause cancer.**IARC Monographs. Overall Evaluation of Carcinogenicity**

2-Butoxyethanol (CAS 111-76-2) 3 Not classifiable as to carcinogenicity to humans.

Cumene (CAS 98-82-8) 2B Possibly carcinogenic to humans.

Xylene (Mixed Isomers) (CAS 1330-20-7) 3 Not classifiable as to carcinogenicity to humans.

US. National Toxicology Program (NTP) Report on Carcinogens

Cumene (CAS 98-82-8) Reasonably Anticipated to be a Human Carcinogen.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity Components in this product have been shown to cause birth defects and reproductive disorders in laboratory animals.**Specific target organ toxicity - single exposure** Respiratory tract irritation. Narcotic effects.**Specific target organ toxicity - repeated exposure** May cause damage to organs through prolonged or repeated exposure.**Aspiration hazard** Not available.**Chronic effects** Prolonged inhalation may be harmful. May be harmful if absorbed through skin.

2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.

Prolonged exposure may cause chronic effects. May cause damage to organs through prolonged or repeated exposure.

12. Ecological information**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
1,2,4-Trimethylbenzene (CAS 95-63-6)		
Aquatic		
Fish LC50	Fathead minnow (<i>Pimephales promelas</i>)	7.19 - 8.28 mg/l, 96 hours
2-Butoxyethanol (CAS 111-76-2)		
Aquatic		
Fish LC50	Inland silverside (<i>Menidia beryllina</i>)	1250 mg/l, 96 hours
Cumene (CAS 98-82-8)		
Aquatic		
Crustacea EC50	Brine shrimp (<i>Artemia</i> sp.)	3.55 - 11.29 mg/l, 48 hours
Fish LC50	Rainbow trout, donaldson trout (<i>Oncorhynchus mykiss</i>)	2.7 mg/l, 96 hours
Xylene (Mixed Isomers) (CAS 1330-20-7)		
Aquatic		
Fish LC50	Bluegill (<i>Lepomis macrochirus</i>)	7.711 - 9.591 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.**Bioaccumulative potential** No data available.**Partition coefficient n-octanol / water (log Kow)**

2-Butoxyethanol 0.83

Cumene 3.66

Xylene (Mixed Isomers) 3.12 - 3.2

Mobility in soil No data available.**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT BULK

UN number	NA1993
Proper shipping name	Combustible Liquid, n.o.s., (Petroleum Distillates, Ethylene Glycol Monobutyl Ether)
Hazard class	Combustible Liquid
Packing group	III
ERG code	128

DOT NON-BULK

Not regulated in a container less than 119 gallons.

15. Regulatory information

US federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.
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CERCLA Hazardous Substance List (40 CFR 302.4)

2-Butoxyethanol (CAS 111-76-2)	Listed.
Cumene (CAS 98-82-8)	Listed.
Xylene (Mixed Isomers) (CAS 1330-20-7)	Listed.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes Delayed Hazard - Yes Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No
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SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312	Yes
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Hazardous chemical

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
2-Butoxyethanol	111-76-2	30-50
1,2,4-Trimethylbenzene	95-63-6	20-40
Cumene	98-82-8	0.1-10
Xylene (Mixed Isomers)	1330-20-7	0.1-10

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Cumene (CAS 98-82-8)
Xylene (Mixed Isomers) (CAS 1330-20-7)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)	Not regulated.
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US state regulations

US. Massachusetts RTK - Substance List

1,2,4-Trimethylbenzene (CAS 95-63-6)
2-Butoxyethanol (CAS 111-76-2)
Cumene (CAS 98-82-8)
Xylene (Mixed Isomers) (CAS 1330-20-7)

US. New Jersey Worker and Community Right-to-Know Act

1,2,4-Trimethylbenzene (CAS 95-63-6)	500 LBS
2-Butoxyethanol (CAS 111-76-2)	500 LBS
Cumene (CAS 98-82-8)	500 LBS
Xylene (Mixed Isomers) (CAS 1330-20-7)	500 LBS

US. Pennsylvania RTK - Hazardous Substances

1,2,4-Trimethylbenzene (CAS 95-63-6)
2-Butoxyethanol (CAS 111-76-2)
Cumene (CAS 98-82-8)
Xylene (Mixed Isomers) (CAS 1330-20-7)

US. Rhode Island RTK

1,2,4-Trimethylbenzene (CAS 95-63-6)
2-Butoxyethanol (CAS 111-76-2)
Cumene (CAS 98-82-8)
Xylene (Mixed Isomers) (CAS 1330-20-7)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Cumene (CAS 98-82-8)	Listed: April 6, 2010
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International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	12-05-2014
Revision date	01-19-2016
Version #	02
Disclaimer	This information is based on data available to us and is accurate and reliable to the best of our knowledge at the time of printing. However, no warranty is expressed or implied regarding the accuracy or completeness of the information contained herein. Final determination of the suitability of this material for the use contemplated is the sole responsibility of the user. Buyer assumes all risk and liabilities. Buyer accepts and uses this material on these conditions.
Revision Information	GHS Classification

SAL CHEMICAL



ISO Registered Company

SAFETY DATA SHEET

OSHA Hazard Communication
Standard 29 CFR 1910.1200.
Prepared to GHS Rev 3.



SECTION 1: Identification

Product identifier:	SC-2021.
Other means of identification:	2052
CAS number:	Not applicable
Recommended use:	Paint and Coating, Thinner and Flushing
Recommended restrictions:	No data available

Manufacturer/Importer/Supplier/Distributor information:

Company Name:	SAL Chemical Company, Inc.
Company Address:	3036 Birch Drive Weirton, WV 26062
Company Telephone:	800-879-1725
24hr. Emergency Telephone:	Chemtrec (800) 424-9300

SECTION 2: Hazard(s) Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200:

Physical hazards

Flammable liquids, Category 3.

Health hazards

Skin irritation, Category 2.

Reproductive toxicity, Category 2.

Specific target organ toxicity - single exposure, Category 3, Central nervous system.

Aspiration hazard, Category 1

Environmental hazards

Acute aquatic toxicity, Category 2.

Chronic aquatic toxicity, Category 2.

Signal word:

DANGER.

Hazard statement(s):

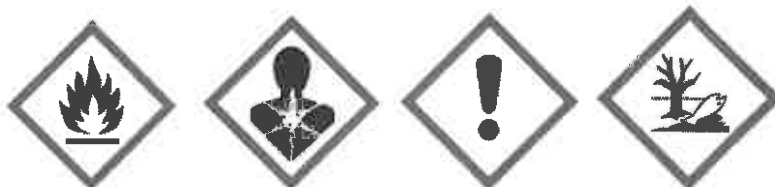
H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.

SDS Revision Date: 04/18/15

H361 Suspected of damaging fertility or the unborn child.

H411 Toxic to aquatic life with long lasting effects.

Hazard symbol(s):



Precautionary statement(s):

- P201 - Obtain special instructions before use.
- P202 - Do not handle until all safety precautions have been read and understood.
- P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P233 - Keep container tightly closed.
- P240 - Ground/bond container and receiving equipment.
- P241 - Use explosion-proof electrical/ ventilating/ lighting/ equipment.
- P242 - Use only non-sparking tools.
- P243 - Take precautionary measures against static discharge.
- P261 - Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
- P264 - Wash skin thoroughly after handling.
- P271 - Use only outdoors or in a well-ventilated area.
- P273 - Avoid release to the environment.
- P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
- P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.
- P308 + P313 - IF exposed or concerned: Get medical advice/ attention.
- P331 - Do NOT induce vomiting.
- P332 + P313 - If skin irritation occurs: Get medical advice/ attention.
- P362 - Take off contaminated clothing and wash before reuse.
- P370 + P378 - In case of fire: Use media as suggested in Section 5 of this SDS to extinguish.
- P391 - Collect spillage.
- P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
- P403 + P235 - Store in a well-ventilated place. Keep cool.
- P405 - Store locked up.
- P501 - Dispose of contents/containers in accordance with local/regional/national/international regulations.

Trade Name: SC-2021

SDS Revision Date: 04/18/15

Hazard(s) not otherwise classified (HNOC): None known.

Percentage of ingredient(s) of unknown acute toxicity:

100% of the mixture consists of ingredients of unknown acute toxicity (oral/dermal/inhalation).

SECTION 3: Composition/Information on Ingredients

Mixture: Solvent mixture.

Chemical name	Concentration (weight %)	CAS#
1-Methoxy-2-Propyl Acetate	40 – 60%	108-65-6
n-Hexane (and isomers)	30 – 50%	110-54-3
Heptane (and Isomers]	5 - 15%	142-82-5

SECTION 4: First-Aid Measures

Inhalation: If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.

Skin contact: Remove contaminated clothing as needed. Wash thoroughly with soap and water. Flush with lukewarm water for 15 minutes. If sticky, use waterless cleaner first. Seek medical attention if discomfort persists.

Eye contact: Immediately flush the eyes with large amounts of clean low- pressure water for at least 15 minutes, occasionally lifting the upper and lower lids. If pain or irritation persists, promptly obtain medical attention.

Ingestion: Do not induce vomiting. Risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention.

Most important symptoms/effects, acute and delayed: May cause moderate irritation, including burning sensation, tearing, redness or swelling. Prolonged overexposure to either vapor or mist may cause coughing, shortness of breath, dizziness and drunkenness. Ingestion may cause gastrointestinal discomfort with any or all of the following symptoms: nausea, vomiting, lethargy, or diarrhea. Repeated or prolonged exposure may irritate the mucous membranes.

Indication of immediate medical attention and special treatment needed: If any symptoms are observed, contact a physician and give them this SDS sheet. Treat symptomatically. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

SECTION 5: Fire-Fighting Measures

Suitable extinguishing media: SMALL FIRE: Use dry chemicals, CO₂, water spray or alcohol-resistant foam. LARGE FIRE: Use water spray, water fog or alcohol-resistant foam..

Unsuitable extinguishing media: Do not use solid water stream.

Specific hazards arising from the chemical: When heated above the flash point, releases flammable vapors. When mixed with air and exposed to ignition source, vapors can burn in open or explode if confined. Vapors may be heavier than air. May travel long distances along the ground before igniting and flashing back to vapor source. Fine sprays/mists may be combustible at temperatures below normal flash point.

Hazardous combustion products may include: CO (Carbon), CO₂ (Carbon Dioxide).

Special protective equipment and precautions for fire-fighters: Firefighters must wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighter's protective clothing will only provide limited protection.

Fight fire from a safe distance/protected location. Heat may build enough pressure to rupture closed containers/spreading fire/increasing risk of burns/injuries. Use water spray/fog for cooling. Avoid frothing/steam explosion. Burning liquid may float on water. Although water soluble, may not be practical to extinguish fire by water dilution. Notify authorities immediately if liquid enters sewer/public waters.

SECTION 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:

Eliminate all sources of ignition. Ensure adequate ventilation. Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak. Keep upwind. Keep out of low areas. Ventilate closed spaces before entering them.

Environmental precautions:

If necessary, all contaminated waste water must be treated in a municipal or industrial wastewater treatment plant before release to surface water. Chemical removal by air and water pollution control devices must meet the minimum efficiency requirements needed to reduce exposures to an acceptable level. Prevent further leakage or spillage if safe to do so. Do not contaminate water.

Methods and materials for containment and cleaning up:

Release can cause fire or explosion. Liquids/vapors may ignite. Evacuate/limit access. Equip responders with proper protection. Extinguish all ignition sources. Stop leak if you can do it without risk. Slippery walking/spread granular cover or soak up. Prevent flow to sewer/public waters. Notify fire and environmental authorities. Soak up small spills with inert solids. Use suitable disposal containers. On water, material is soluble and may float or sink. Contain/collect rapidly to minimize dispersion. Disperse residue to reduce aquatic harm. Report as per regulatory requirements.

SECTION 7: Handling and Storage

Precautions for safe handling: For industrial use only.

Keep container tightly closed when not in use. The potential for peroxide formation is enhanced when this solvent is used in processes such as distillation. Use only non-sparking tools. Properly ground containers before beginning transfer.

When transferring propylene glycol ethers with flash points at or below 60 °C (140 °F) into fixed site vessels, the vessel should be purged and inerted prior to transfer.

Propylene glycol ethers may be transferred into air atmospheres if the temperature of the product and the ambient temperature within the shipping container are both at least 16.7 °C (30 °F) less than the product's flash point. After loading, nitrogen blanketing is required if the contents of the transportation container could exceed a temperature of 16.7 °C (30 °F) less than the product flash point during any subsequent transportation activities.

If the product flash point is less than 16.7 °C (30 °F) above either the ambient temperature of the transportation container or the storage temperature of the product, the container should be purged and inerted with nitrogen prior to loading and nitrogen blanketed after loading.

Handle empty containers with care. Flammable/combustible residue remains after emptying. The purging of all empty shipping containers, regardless of the flashpoint, is recommended when received with air atmospheres. Isolate, vent, drain, wash and purge systems or equipment before maintenance or repair. Use adequate personal protective equipment. Observe precautions pertaining to confined space entry.

Conditions for safe storage, including any incompatibles: Store only in tightly closed, properly vented containers away from heat, sparks, open flame and strong oxidizing agents. Storage under nitrogen atmosphere is recommended to minimize possible formation of highly reactive peroxides. Store in properly lined steel/stainless steel to avoid slight discoloration from mild steel/copper. Aluminum (5000 series alloys - U.S. Aluminum Association Standard) showed no corrosion after 30 days contact with ARCOSOLV® PM Acetate, ARCOSOLV® DPM, TPM, PTB, or PM at 71°C (160°F).

Some plastics/rubbers are attacked by Glycol Ethers/Ether Esters.
This product will absorb water if exposed to air.

SECTION 8: Exposure Controls/Personal Protection

Control Parameters:

Occupational exposure limits:

US OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200): Permissible Exposure Limits		
Substance	PEL-TWA (8 hour)	PEL-STEL (15 min)
1-Methoxy-2-Propyl Acetate	No data available	No data available
n-Hexane	500 ppm (1800 mg/m ³)	No data available
Heptane (and Isomers)	500 ppm (2000 mg/m ³)	500 ppm (2000 mg/m ³)

ACGIH Threshold Limit Values		
Substance	TLV-TWA (8 hour)	TLV-STEL (15 min)
1-Methoxy-2-Propyl Acetate	No data available	No data available
n-Hexane	50 ppm	No data available
Heptane (and Isomers)	400 ppm	500 ppm

NIOSH Recommended Exposure Limits		
Substance	TWA	STEL
1-Methoxy-2-Propyl Acetate	50 ppm	No data available
n-Hexane	50 ppm (180 mg/m ³)	No data available
Heptane (and Isomers)	85 ppm (350 mg/m ³)	440 ppm (1800mg/m ³) 15 mins Ceiling

Other Exposure Limits: None available.

Appropriate engineering controls: Local exhaust and general ventilation must be adequate to meet exposure limit(s). Handle in accordance with good industrial hygiene and safety practice. Good industrial hygiene practice dictates that indoor work areas should be isolated and provided with adequate local exhaust ventilation. Wash hands before breaks and at the end of workday.

Individual protection measures, such as personal protective equipment:

Eye/face protection: Eye protection such as chemical splash goggles and/or face shield must be worn when possibility exists for eye contact due to splashing or spraying liquid, airborne particles, or vapor.

Skin and Hand protection: Handle with gloves (Neoprene). Gloves must be suitable for use with solvents. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Respiratory protection: Wear positive pressure self-contained breathing apparatus (SCBA) for organic vapors if ventilation or other mechanical means cannot keep the air below the TLV values.

Other: Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the hazards and/or potential hazards that may be encountered during use.

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Take off contaminated clothing and wash before reuse.

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Thermal hazards: None known.

SECTION 9: Physical and chemical properties

Appearance:

Physical state:

Color:

Odor:

Odor threshold:

pH:

Melting Point/Freezing Point:

Initial Boiling point/Boiling Range:

Flash point:

Evaporation rate:

Flammability (solid, gas):

**Upper/lower flammability
or explosive limits:**

Vapor pressure:

Vapor density (Air=1):

Relative vapor density:

Solubility(ies):

Partition coefficient (n-octanol/water):

Auto-ignition temperature:

Decomposition temperature:

Viscosity (dynamic):

Viscosity (kinematic):

Dry Time (Ether=1):

% Volatile by Volume

Liquid.

Colorless

Ether- like odor.

No data available.

6.8 at 198.00 g/l at 68 °F (20 °C)

-85 °F (-65 °C).

295 °F (146 °C) at 1013 hPa (760 mm Hg)

~ 113.9 °F (45.5 °C) at 101.3 hPa (76.0 mm Hg). Method: ASTM D 3278.

0.3 (butyl acetate =1).

Not applicable.

LEL - 1.5 vol%.

UEL - 12 vol%.

5.07 hPa (3.80 mm Hg) at 77 °F (25°C).

~0.96 g/cm³ at 77 °F (25°C)

~4.6 at 59 - 90 °F (15 - 32 °C) (Air = 1)

198 g/l at 68 °F (20°C) Soluble in water.

log Pow: 0.36 at 77 °F (25 °C).

604 °F (318 °C).

No data available.

~1 mPa.s at 77 °F (25 °C) (Brookfield).

1.1 mm²/s at 77 °F (25 °C).

No data available.

100%

SECTION 10: Stability and Reactivity

Reactivity: Stable.

Chemical stability: This material is stable under normal handling and storage conditions.

Possibility of hazardous reactions: Material is not known to polymerize.

Conditions to avoid: Extended contact with air or oxygen. The potential for peroxide formation is enhanced when this solvent is used in processes such as distillation.

Heat, sparks, open flame, other ignition sources, and oxidizing conditions.

Ignition may occur at temperatures below those published in the literature as autoignition or ignition temperatures.

Incompatible materials: Strong oxidizing agents. Moisture and humidity. May react with oxygen to form peroxides. However, there is no known evidence that it has nearly the peroxide forming potential as, for example, diethyl ether, etc.

SDS Revision Date: 04/18/15

Hazardous decomposition Products: CO (Carbon Monoxide), CO₂ (Carbon Dioxide) and various hydrocarbons.

SECTION 11: Toxicological Information

Information on likely routes of exposure:

Inhalation: Prolonged overexposure to either vapor or mist may cause coughing, shortness of breath, dizziness and drunkenness.

Ingestion: Ingestion may cause gastrointestinal discomfort with any or all of the following symptoms: nausea, vomiting, lethargy, or diarrhea.

Skin: Possible systemic toxicity by skin absorption.

Eye: May cause moderate irritation, including burning sensation, tearing, redness or swelling.

Target Organs: Eyes, central nervous system (CNS).

Symptoms related to the physical, chemical, and toxicological characteristics: May cause moderate irritation, including burning sensation, tearing, redness or swelling. Prolonged overexposure to either vapor or mist may cause coughing, shortness of breath, dizziness and drunkenness. Ingestion may cause gastrointestinal discomfort with any or all of the following symptoms: nausea, vomiting, lethargy, or diarrhea.

Delayed and immediate effects and chronic effects from short or long-term exposure: Repeated or prolonged exposure may irritate the mucous membranes.

Acute toxicity:

Ingredient Information:

Substance	Test Type (species)	Value
1-Methoxy-2-Propyl Acetate	LD ₅₀ Oral (Rat)	6190 mg/kg
	LD ₅₀ Dermal (Rabbit)	> 5000 mg/kg
	LC ₅₀ Inhalation (Rat)	No data available
n-Hexane	LD ₅₀ Oral (Rat)	25000 mg/kg
	LD ₅₀ Dermal	No data available
	LC ₅₀ Inhalation (Rat)	48000 ppm (4h)
Heptane (and Isomers)	LD ₅₀ Oral (Rat)	No data available
	LD ₅₀ Dermal (Rat)	> 2000 mg/kg
	LC ₅₀ Inhalation, Dust	None known

Product Acute Toxicity Estimates:

Acute toxicity

Acute oral toxicity: LD₅₀ (Oral)(rat): 6,190 mg/kg

Method: OECD Test Guideline 401.

Based on acute toxicity values, - not classified.

Acute inhalation toxicity: LC₀ (rat): > 23.4 mg/l Exposure time: 6 HOURS

Method: OECD Test Guideline 403.

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Based on acute toxicity values, not classified.

Acute dermal toxicity: LD₅₀ (rat): > 2,000 mg/kg
LD₅₀ (rabbit): > 5,000 mg/kg

Method: OECD Test Guideline 402

Based on acute toxicity values, not classified.

Skin corrosion/irritation

Species: rabbit

Classification: Non-irritating to the skin. Method: OECD Test Guideline 404

Based on skin irritation values, not classified

Serious eye damage/eye irritation

Species: rabbit

Classification: Non-irritating to the eyes. Method: OECD Test Guideline 405

May cause moderate irritation, including burning sensation, tearing, redness or swelling.

Respiratory or skin sensitization

Maximization Test

Species: guinea pig

Method: OECD Test Guideline 406

Not expected to cause sensitization by skin contact.

Carcinogenicity

Not listed by IARC, NTP, OSHA or EPA.

Germ cell mutagenicity

Based on available data, the classification criteria are not met

Reproductive toxicity

Effects on fertility: Conclusive but not sufficient for classification

2-Methoxy-1-propanol acetate at <0.3% is not present in sufficient quantity to give rise to classification of this material as toxic to reproduction.

Effects on Development: Based on available data, the classification criteria are not met

Target Organ Systemic Toxicant - Single exposure

High concentrations may cause central nervous system depression.

Target Organ Systemic Toxicant - Repeated exposure

Based on repeated exposure toxicity data, not classified for STOT RE.

Aspiration hazard

Not classified due to data which are conclusive although insufficient for classification. Component data suggests possibility of aspiration hazard.

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SECTION 12: Ecological Information

Ecotoxicity:

Product data: Components of this product are hazardous to aquatic life.

Ingredient Information:

Substance	Test Type	Species	Value
1-Methoxy-2-Propyl Acetate	LC ₅₀	Fish – Oncorhynchus mykiss (rainbow trout)	130-134 mg/L (96h)
	EC ₅₀	Invertebrate - Daphnia magna (Water flea)	373 mg/L (48h)
	NOEC	Algae	1000 mg/l (96h)
n-Hexane	LC ₅₀	Fish - Pimephales promelas (fathead minnow)	2.5 mg/L (96h)
	EC ₅₀	Invertebrate - Daphnia magna (Water flea)	3878 mg/L (48h)
	EC ₅₀	Algae - Chlorella vulgaris (Fresh water algae)	12840 mg/l (3h)
Heptane (and Isomers)	LC ₅₀	Fish - Carassius auratus (goldfish)	4 mg/L (24h)
	EC ₅₀	Invertebrate - Daphnia magna (Water flea)	1.5 mg/L (48h)
	LC ₅₀	Algae	No data available

Persistence and degradability:

>=83 %

Method: OECD Test Guideline 301

Rapidly degradable.

Bioaccumulative potential:

Bioconcentration factor (BCF): 3.16

Method: (QSAR calculated value)

This material is not expected to bioaccumulate.

Mobility in soil:

Product may enter soil and water.

Other adverse effects:

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT). This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

SECTION 13: Disposal Considerations

Disposal instructions:

Contaminated product, soil, or water may be hazardous waste. (See 40 U.S. Code of Federal Regulations (CFR) 261 and 29 CFR 1910).

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Landfill solids at permitted sites. Use registered transporters. Burn concentrated liquids. Avoid flame-outs. Assure emissions comply with applicable regulations. Dilute aqueous waste may biodegrade. Avoid overloading/poisoning plant biomass. Assure effluent complies with applicable regulations.

SECTION 14: Transport Information

DOT: UN 3272. Esters, N.O.S (1-Methoxy-2-Propanol Acetate and n-Hexane), Hazard Class 3, PG III
IATA: UN 3272. Esters, N.O.S (1-Methoxy-2-Propanol Acetate and n-Hexane), Hazard Class 3, PG III
IMDG: UN 3272. Esters, N.O.S (1-Methoxy-2-Propanol Acetate and n-Hexane), Hazard Class 3, PG III

SECTION 15: Regulatory Information

USA:

United States Federal Regulations: This SDS complies with the OSHA, 29 CFR 1910.1200. The product is hazardous under OSHA.

SARA Superfund and Reauthorization Act of 1986 Title III sections 302, 311,312 and 313:

Section 302 – No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Superfund Amendments and Reauthorization Act of 1986 (SARA):

CHEMICAL	C.A.S. Number	Weight %	Section 311/312
1-Methoxy-2-Propyl Acetate	108-65-6	> 29%	Chronic Health Hazard, Fire Hazard Acute Health Hazard,
n-hexane	110-54-3	45 – 80%	Chronic Health Hazard, Fire Hazard Acute Health Hazard,
Heptane (and Isomers)	142-82-5	7 - 15%	Chronic Health Hazard, Fire Hazard Acute Health Hazard,
PRODUCT SC 2021			Fire Hazard

Section 313 – List of Toxic Chemicals (40CFC 372): n-Hexane (at level of 1% or greater) is found on the 313 list of Toxic Chemicals.

STATE REGULATIONS:

This SDS contains specific health and safety data is applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

California Proposition 65: This product does not contain any components that are known to State of California to cause cancer, birth defects, or any other reproductive harm.

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New Jersey Right to Know: 2-Methoxy-1-methylethyl acetate, n-Hexane and Heptane are listed on the New Jersey Right to Know list.

Pennsylvania Right to Know: 2-Methoxy-1-methylethyl acetate, n-Hexane and Heptane are listed on the Pennsylvania Right to Know list.

Massachusetts Right to Know: n-Hexane and Heptane are listed on the Massachusetts Right to Know list.

INTERNATIONAL REGULATIONS:

Canadian Controlled Products Regulations (WHMIS): This product has been classified as Class B3, D2A and D2B in accordance with the hazard criteria of the *Controlled Products Regulations* and the SDS contains all the information required by the *Controlled Products Regulations*.

SECTION 16: Other Information

Revision Date: April 18, 2015

DISCLAIMER: The information contained within this Safety Data Sheet is for the specific material described herein only and may not be valid if the material is used in combination with any other materials or process. All information appearing herein is based upon data obtained from the manufacturer and/or recognized technical sources. While the information is believed to be accurate, SAL Chemical makes no representations as to the completeness or accuracy of this information. The user is responsible to determine the completeness of the information and suitability for the user's own particular use. The information provided herein is supplied under the condition that the person or persons receiving this information will make their own determination as to its suitability for their purpose of use and shall assume all risks of their use, handling, and disposal of the material. SAL Chemical expressly disclaims all express or implied warranties of merchantability and fitness for a particular purpose, with respect to the material or information provided herein, and SAL Chemical shall, under no circumstances, be liable for incidental or consequential damages.



SAFETY DATA SHEET

1. Identification

Product identifier

AKA: SC 5256

S-5256 Solvent Blend

Other means of identification

Product code

0303463

Recommended use

Solvent

Recommended restrictions

None known.

Manufacturer

Superior Oil Company, Inc.
1402 North Capitol Avenue, Suite #100
Indianapolis, IN 46202
US
Information (317) 781-4400
Emergency (317) 781-4400

Distributed by:

SAL Chemical

3036 Birch Drive,

Weirton, WV 26062

304.748.8200 - Phone

304.797.8751 - Fax

2. Hazard(s) identification

Physical hazards

Flammable liquids

Category 3

Health hazards

Acute toxicity, oral

Category 4

Skin corrosion/irritation

Category 2

Serious eye damage/eye irritation

Category 2

Carcinogenicity

Category 2

Specific target organ toxicity, single exposure

Category 3 respiratory tract irritation

Specific target organ toxicity, repeated exposure

Category 2

Environmental hazards

Hazardous to the aquatic environment, acute hazard

Category 2

Hazardous to the aquatic environment, long-term hazard

Category 2

OSHA defined hazards

Not classified.

Label elements



Signal word

WARNING!

Hazard statement

H226

Flammable liquid and vapor.

H302

Harmful if swallowed.

H315

Causes skin irritation.

H319

Causes serious eye irritation.

H335

May cause respiratory irritation.

H351

Suspected of causing cancer.

H373

May cause damage to organs through prolonged or repeated exposure.

H401

Toxic to aquatic life.

H411

Toxic to aquatic life with long lasting effects.

Prevention	<p>P262 - Do not get in eyes, on skin, or on clothing.</p> <p>P261 - Avoid breathing vapors or mist</p> <p>P202 - Do not handle until all safety precautions have been read and understood.</p> <p>P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.</p> <p>P271 - Use outdoors only or in a well-ventilated area.</p> <p>P233 - Keep container tightly closed.</p> <p>P240 - Ground/bond container and receiving equipment.</p> <p>P241 - Use explosion-proof electrical/ventilating/lighting equipment.</p> <p>P242 - Use only non-sparking tools.</p> <p>P243 - Take precautionary measures against static discharge.</p> <p>P264 - Wash hands thoroughly after handling.</p> <p>P270 - Do not eat, drink or smoke when using this product.</p> <p>P273 - Avoid release to the environment.</p> <p>P280 - Wear protective gloves/protective clothing/eye protection/face protection.</p>
Response	<p>P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.</p> <p>P332 + P313 - If skin irritation occurs: Get medical advice/attention.</p> <p>P304 + P340 - If INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P308 + P313 - If exposed or concerned: Get medical advice/attention.</p> <p>P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P337 + P313 - If eye irritation persists: Get medical advice/attention.</p> <p>P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.</p> <p>P310 - Immediately call a POISON CENTER/doctor.</p> <p>P370 + P378 - In case of fire: Use appropriate media to extinguish.</p> <p>P391 - Collect spillage.</p>
Storage	<p>P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.</p> <p>P403 + P235 - Store in a well-ventilated place. Keep cool.</p>
Disposal	<p>P501 - Dispose of contents/container in accordance with local/regional/national/international regulations.</p>

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Heavy Aromatic Naphtha		64742-94-5	70-90
1-Methoxy-2-Propanol Acetate		108-65-6	10-30
1,2,4-Trimethylbenzene		95-63-6	0.1-10
Naphthalene		91-20-3	0.1-10

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire-fighting equipment/instructions

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards

Flammable liquid and vapor.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Environmental precautions

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Vapors may form explosive mixtures with air. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist or vapor. Do not taste or swallow. Avoid contact with skin. Avoid contact with eyes. Avoid prolonged exposure. Avoid contact with clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Avoid release to the environment. Do not empty into drains.

Conditions for safe storage, including any incompatibilities

Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Keep in an area equipped with sprinklers.

8. Exposure controls/personal protection

Occupational exposure limits**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value
Heavy Aromatic Naphtha (CAS 64742-94-5)	PEL	400 mg/m ³
Naphthalene (CAS 91-20-3)	PEL	100 ppm 50 mg/m ³ 10 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
1,2,4-Trimethylbenzene (CAS 95-63-6)	TWA	25 ppm	
Heavy Aromatic Naphtha (CAS 64742-94-5)	TWA	200 mg/m ³	Non-aerosol.
Naphthalene (CAS 91-20-3)	TWA	10 ppm	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
1,2,4-Trimethylbenzene (CAS 95-63-6)	TWA	125 mg/m3
Naphthalene (CAS 91-20-3)	STEL	25 ppm
		75 mg/m3
	TWA	15 ppm
		50 mg/m3
		10 ppm

US. AIHA Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
1-Methoxy-2-Propanol Acetate (CAS 108-65-6)	TWA	50 ppm

Biological limit values No biological exposure limits noted for the ingredient(s).

Exposure guidelines**US - California OELs: Skin designation**

1-Methoxy-2-Propanol Acetate (CAS 108-65-6)	Can be absorbed through the skin.
Naphthalene (CAS 91-20-3)	Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

Heavy Aromatic Naphtha (CAS 64742-94-5)	Can be absorbed through the skin.
Naphthalene (CAS 91-20-3)	Can be absorbed through the skin.

Appropriate engineering controls Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Hand protection Wear appropriate chemical resistant gloves.

Skin protection

Other Wear appropriate chemical resistant clothing.

Respiratory protection If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

General hygiene considerations When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	Clear.
Physical state	Liquid.
Form	Liquid.
Color	Colorless.
Odor	Typical Solvent.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	284 °F (140 °C) estimated
Flash point	113.9 °F (45.5 °C) Lowest Flashing component
Evaporation rate	< 1 (BuAc = 1)
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	0.8 % estimated
Flammability limit - upper (%)	12 % estimated

Vapor pressure	1.22 hPa (1 hPa = 0.75006 mmHg)
Vapor pressure temp.	@ 20 Deg. C
Vapor density	> 1 (Air = 1)
Solubility(ies)	
Solubility (water)	Miscible
Auto-ignition temperature	Not determined
Other information	
Percent volatile	100 %
Pounds per gallon	7.575 lb/gal
Specific gravity	0.909
VOC (Weight %)	100 %

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	No hazardous reaction known under normal conditions of use.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Suitable precautions should be utilized if using this product at temperatures above the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizers and strong acids.
Hazardous decomposition products	No hazardous decomposition products are known if stored and applied as directed.

11. Toxicological information

Information on likely routes of exposure

Ingestion	Harmful if swallowed.
Inhalation	Prolonged inhalation may be harmful. May cause damage to organs by inhalation. May cause irritation to the respiratory system.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Symptoms related to the physical, chemical and toxicological characteristics	Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity	Harmful if swallowed. May cause respiratory irritation. Expected to be a low hazard for usual industrial or commercial handling by trained personnel.
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Components	Species	Test Results
1,2,4-Trimethylbenzene (CAS 95-63-6)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 3160 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 2000 ppm, 48 Hours
<i>Oral</i>		
LD50	Rat	6 g/kg

Components	Species	Test Results
Heavy Aromatic Naphtha (CAS 64742-94-5)		
Acute		
<i>Inhalation</i>		
LC50	Rat	61 mg/l, 4 Hours
<i>Oral</i>		
LD50	Rat	> 25 ml/kg
<i>Other</i>		
LD50	Rabbit	> 5 mg/kg, 4 Hours
Naphthalene (CAS 91-20-3)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 2 g/kg
	Rat	> 20 g/kg
<i>Oral</i>		
LD50	Guinea pig	1200 mg/kg
	Rat	490 mg/kg
<i>Other</i>		
LD50	Mouse	100 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity Suspected of causing cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity

Naphthalene (CAS 91-20-3) 2B Possibly carcinogenic to humans.

US. National Toxicology Program (NTP) Report on Carcinogens

Naphthalene (CAS 91-20-3) Reasonably Anticipated to be a Human Carcinogen.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Respiratory tract irritation.

Specific target organ toxicity - repeated exposure May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard Not available.

Chronic effects Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects. May cause damage to organs through prolonged or repeated exposure.

12. Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects. Accumulation in aquatic organisms is expected.

Components	Species	Test Results
1,2,4-Trimethylbenzene (CAS 95-63-6)		
Aquatic		
Fish	LC50	Fathead minnow (Pimephales promelas) 7.19 - 8.28 mg/l, 96 hours
Heavy Aromatic Naphtha (CAS 64742-94-5)		
Aquatic		
Crustacea	EC50	Water flea (Daphnia pulex) 2.7 - 5.1 mg/l, 48 hours

Components		Species	Test Results
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	8.8 mg/l, 96 hours
			8.8 mg/l, 96 hours
Naphthalene (CAS 91-20-3)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	1.09 - 3.4 mg/l, 48 hours
Fish	LC50	Pink salmon (Oncorhynchus gorbuscha)	1.11 - 1.68 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Partition coefficient n-octanol / water (log Kow)

1-Methoxy-2-Propanol Acetate	0.36, @ 25 C
Naphthalene	3.3

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT BULK

UN number	NA1993
Proper shipping name	Combustible Liquid, n.o.s., (1-Methoxy-2-Propanol Acetate, Petroleum Distillates)
Hazard class	Combustible Liquid
Packing group	III
ERG code	128

DOT NON-BULK

Not regulated in a container less than 119 gallons.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory List.

CERCLA Hazardous Substance List (40 CFR 302.4)

Naphthalene (CAS 91-20-3)	Listed.
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US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312	Yes
Hazardous chemical	

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
1,2,4-Trimethylbenzene	95-63-6	0.1-10
Naphthalene	91-20-3	0.1-10

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Naphthalene (CAS 91-20-3)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.**US state regulations****US. Massachusetts RTK - Substance List**

1,2,4-Trimethylbenzene (CAS 95-63-6)

Naphthalene (CAS 91-20-3)

US. New Jersey Worker and Community Right-to-Know Act

1,2,4-Trimethylbenzene (CAS 95-63-6)

500 LBS

Heavy Aromatic Naphtha (CAS 64742-94-5)

10000 LBS

Naphthalene (CAS 91-20-3)

500 LBS

US. Pennsylvania RTK - Hazardous Substances

1,2,4-Trimethylbenzene (CAS 95-63-6)

Naphthalene (CAS 91-20-3)

US. Rhode Island RTK

1,2,4-Trimethylbenzene (CAS 95-63-6)

Naphthalene (CAS 91-20-3)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Naphthalene (CAS 91-20-3)

Listed: April 19, 2002

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision**Issue date** 01-18-2016**Version #** 01**Disclaimer**

This information is based on data available to us and is accurate and reliable to the best of our knowledge at the time of printing. However, no warranty is expressed or implied regarding the accuracy or completeness of the information contained herein. Final determination of the suitability of this material for the use contemplated is the sole responsibility of the user. Buyer assumes all risk and liabilities. Buyer accepts and uses this material on these conditions.

AKA: SC 6312

1. Identification

Product identifier

S-6312 Solvent Blend

Other means of identification

Product code

0303462

Recommended use

Solvent

Recommended restrictions

None known.

Manufacturer

Superior Oil Company, Inc.
1402 North Capitol Avenue, Suite #100
Indianapolis, IN 46202
US
Information (317) 781-4400
Emergency (317) 781-4400

Distributed by:
SAL Chemical
3036 Birch Drive,
Weirton, WV 26062
304.748.8200 - Phone
304.797.8751 - Fax

2. Hazard(s) identification

Physical hazards

Flammable liquids

Category 2

Health hazards

Acute toxicity, oral

Category 4

Acute toxicity, inhalation

Category 4

Skin corrosion/irritation

Category 2

Serious eye damage/eye irritation

Category 2

Carcinogenicity

Category 1B

Specific target organ toxicity, single exposure

Category 3 respiratory tract irritation

Specific target organ toxicity, single exposure

Category 3 narcotic effects

Specific target organ toxicity, repeated exposure

Category 2

Environmental hazards

Not classified.

OSHA defined hazards

Not classified.

Label elements



Signal word

DANGER!

Hazard statement

H225

Highly flammable liquid and vapor.

H302

Harmful if swallowed.

H315

Causes skin irritation.

H319

Causes serious eye irritation.

H332

Harmful if inhaled.

H335

May cause respiratory irritation.

H336

May cause drowsiness or dizziness.

H350

May cause cancer.

H373

May cause damage to organs through prolonged or repeated exposure.

Prevention

P202 - Do not handle until all safety precautions have been read and understood.

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P271 - Use outdoors only or in a well-ventilated area.

P233 - Keep container tightly closed.

P240 - Ground/bond container and receiving equipment.

P241 - Use explosion-proof electrical/ventilating/lighting equipment.

P242 - Use only non-sparking tools.

P243 - Take precautionary measures against static discharge.

P261 - Avoid breathing vapors or mist

P264 - Wash hands thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

Response	<p>P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.</p> <p>P332 + P313 - If skin irritation occurs: Get medical advice/attention.</p> <p>P304 + P340 - If INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P308 + P313 - If exposed or concerned: Get medical advice/attention.</p> <p>P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P337 + P313 - If eye irritation persists: Get medical advice/attention.</p> <p>P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.</p> <p>P310 - Immediately call a poison center/doctor.</p> <p>P370 + P378 - In case of fire: Use appropriate media to extinguish.</p>
Storage	<p>P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.</p> <p>P403 + P235 - Store in a well-ventilated place. Keep cool.</p>
Disposal	P501 - Dispose of contents/container in accordance with local/regional/national/international regulations.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
2-Butoxyethanol		111-76-2	30-50
2-Methyl-4-Pentanone		108-10-1	30-50
Light Aromatic Solvent Naphtha		64742-95-6	10-30
1,2,4-Trimethylbenzene		95-63-6	0.1-10
Cumene		98-82-8	0.1-10
Xylene (Mixed Isomers)		1330-20-7	0.1-10

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Alcohol resistant foam. Water fog. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire-fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards

Highly flammable liquid and vapor.

6. Accidental release measures**Personal precautions,
protective equipment and
emergency procedures**

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

**Methods and materials for
containment and cleaning up**

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Use water spray to reduce vapors or divert vapor cloud drift. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Environmental precautions

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

7. Handling and storage**Precautions for safe handling**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Vapors may form explosive mixtures with air. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist or vapor. Do not get this material in contact with skin. Do not taste or swallow. Avoid contact with eyes. Avoid prolonged exposure. Avoid contact with clothing. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling.

For additional information on equipment bonding and grounding, refer to the Canadian Electrical Code in Canada, (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity" or National Fire Protection Association (NFPA) 70, "National Electrical Code".

**Conditions for safe storage,
including any
incompatibilities**

Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Avoid spark promoters. Eliminate sources of ignition. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Keep in an area equipped with sprinklers.

8. Exposure controls/personal protection**Occupational exposure limits****US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value
2-Butoxyethanol (CAS 111-76-2)	PEL	240 mg/m ³
		50 ppm

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
2-Methyl-4-Pentanone (CAS 108-10-1)	PEL	410 mg/m3
Cumene (CAS 98-82-8)	PEL	100 ppm 245 mg/m3
Xylene (Mixed Isomers) (CAS 1330-20-7)	PEL	50 ppm 435 mg/m3
		100 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
1,2,4-Trimethylbenzene (CAS 95-63-6)	TWA	25 ppm
2-Butoxyethanol (CAS 111-76-2)	TWA	20 ppm
2-Methyl-4-Pentanone (CAS 108-10-1)	STEL	75 ppm
	TWA	20 ppm
Cumene (CAS 98-82-8)	TWA	50 ppm
Xylene (Mixed Isomers) (CAS 1330-20-7)	STEL	150 ppm
	TWA	100 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
1,2,4-Trimethylbenzene (CAS 95-63-6)	TWA	125 mg/m3
		25 ppm
2-Butoxyethanol (CAS 111-76-2)	TWA	24 mg/m3
		5 ppm
2-Methyl-4-Pentanone (CAS 108-10-1)	STEL	300 mg/m3
		75 ppm
	TWA	205 mg/m3
		50 ppm
Cumene (CAS 98-82-8)	TWA	245 mg/m3
		50 ppm

Biological limit values
ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
2-Butoxyethanol (CAS 111-76-2)	200 mg/g	Butoxyacetic acid (BAA), with hydrolysis	Creatinine in urine	*
2-Methyl-4-Pentanone (CAS 108-10-1)	1 mg/l	Methyl isobutyl ketone	Urine	*
Xylene (Mixed Isomers) (CAS 1330-20-7)	1.5 g/g	Methylhippuric acids	Creatinine in urine	*

* - For sampling details, please see the source document.

Exposure guidelines
US - California OELs: Skin designation

2-Butoxyethanol (CAS 111-76-2)	Can be absorbed through the skin.
Cumene (CAS 98-82-8)	Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

2-Butoxyethanol (CAS 111-76-2)	Skin designation applies.
Cumene (CAS 98-82-8)	Skin designation applies.

US - Tennessee OELs: Skin designation

2-Butoxyethanol (CAS 111-76-2)	Can be absorbed through the skin.
Cumene (CAS 98-82-8)	Can be absorbed through the skin.

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

2-Butoxyethanol (CAS 111-76-2)

Can be absorbed through the skin.

Cumene (CAS 98-82-8)

Can be absorbed through the skin.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

2-Butoxyethanol (CAS 111-76-2)

Can be absorbed through the skin.

Cumene (CAS 98-82-8)

Can be absorbed through the skin.

Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Wear safety glasses with side shields (or goggles).

Hand protection

Wear appropriate chemical resistant gloves.

Skin protection**Other**

Wear appropriate chemical resistant clothing.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

General hygiene considerations

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties**Appearance**

Clear.

Physical state

Liquid.

Form

Liquid.

Color

Colorless.

Odor

Typical Solvent.

pH

Not available.

Melting point/freezing point

Not determined

Initial boiling point and boiling range

242.6 °F (117 °C) estimated

Flash point

60.8 °F (16.0 °C) Lowest Flashing component

Evaporation rate

< 1 (BuAc = 1)

Upper/lower flammability or explosive limits**Flammability limit - lower (%)**

0.9 % estimated

Flammability limit - upper (%)

10.6 % estimated

Vapor pressure temp.

7.31 hPa @ 20 Deg. C (1 hPa = 0.75006 mmHg)

Vapor density

> 1 (Air = 1)

Solubility(ies)**Solubility (water)**

Appreciable

Auto-ignition temperature

Not determined

Other information**Percent volatile**

100%

Pounds per gallon

7.166 lb/gal

Other information

Specific gravity	0.860
VOC (Weight %)	100 %

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Suitable precautions should be utilized if using this product at temperatures above the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizers and strong acids.
Hazardous decomposition products	No hazardous decomposition products are known if stored and applied as directed.

11. Toxicological information

Information on likely routes of exposure

Ingestion	Harmful if swallowed.
Inhalation	Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Harmful if inhaled. May cause damage to organs by inhalation.
Skin contact	Causes skin irritation. 2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.

Eye contact	Causes serious eye irritation.
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Symptoms related to the physical, chemical and toxicological characteristics	Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
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Information on toxicological effects

Acute toxicity	Harmful if inhaled. Harmful if swallowed. Narcotic effects. May cause respiratory irritation. Expected to be a low hazard for usual industrial or commercial handling by trained personnel.
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Components	Species	Test Results
1,2,4-Trimethylbenzene (CAS 95-63-6)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 3160 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 2000 ppm, 48 Hours
<i>Oral</i>		
LD50	Rat	6 g/kg
2-Butoxyethanol (CAS 111-76-2)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	400 mg/kg
<i>Inhalation</i>		
LC50	Mouse	700 ppm, 7 Hours
	Rat	450 ppm, 4 Hours
<i>Oral</i>		
LD50	Guinea pig	1.2 g/kg
	Mouse	1.2 g/kg
	Rabbit	0.32 g/kg
	Rat	560 mg/kg

Components	Species	Test Results
<i>Other</i>		
LD50	Mouse	1130 mg/kg
	Rabbit	280 mg/kg
	Rat	340 mg/kg
2-Methyl-4-Pentanone (CAS 108-10-1)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 16000 mg/kg
<i>Inhalation</i>		
LC50	Rat	8.2 mg/l, 4 Hours
<i>Oral</i>		
LD50	Rat	2080 mg/kg
<i>Other</i>		
LD50	Guinea pig	0.919 ml/kg
	Mouse	590 mg/kg
	Rat	1.14 ml/kg
Cumene (CAS 98-82-8)		
Acute		
<i>Inhalation</i>		
LC50	Mouse	2000 ppm, 7 Hours
		24.7 mg/l, 2 Hours
	Rat	8000 ppm, 4 Hours
<i>Oral</i>		
LD50	Rat	1400 mg/kg
Xylene (Mixed Isomers) (CAS 1330-20-7)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 43 g/kg
<i>Inhalation</i>		
LC50	Mouse	3907 mg/l, 6 Hours
	Rat	6350 mg/l, 4 Hours
<i>Oral</i>		
LD50	Mouse	1590 mg/kg
	Rat	3523 - 8600 mg/kg
<i>Other</i>		
LD50	Rat	3.8 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity May cause cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity

2-Butoxyethanol (CAS 111-76-2)	3 Not classifiable as to carcinogenicity to humans.
2-Methyl-4-Pentanone (CAS 108-10-1)	2B Possibly carcinogenic to humans.
Cumene (CAS 98-82-8)	2B Possibly carcinogenic to humans.
Xylene (Mixed Isomers) (CAS 1330-20-7)	3 Not classifiable as to carcinogenicity to humans.

US. National Toxicology Program (NTP) Report on Carcinogens

Cumene (CAS 98-82-8)

Reasonably Anticipated to be a Human Carcinogen.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Respiratory tract irritation. Narcotic effects.
Specific target organ toxicity - repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	Not available.
Chronic effects	<p>Prolonged inhalation may be harmful. May be harmful if absorbed through skin.</p> <p>2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.</p> <p>Prolonged exposure may cause chronic effects. May cause damage to organs through prolonged or repeated exposure.</p>

12. Ecological information

Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
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Components	Species	Test Results
1,2,4-Trimethylbenzene (CAS 95-63-6)		
Aquatic		
Fish LC50	Fathead minnow (Pimephales promelas)	7.19 - 8.28 mg/l, 96 hours
2-Butoxyethanol (CAS 111-76-2)		
Aquatic		
Fish LC50	Inland silverside (Menidia beryllina)	1250 mg/l, 96 hours
2-Methyl-4-Pentanone (CAS 108-10-1)		
Aquatic		
Fish LC50	Fathead minnow (Pimephales promelas)	492 - 593 mg/l, 96 hours
Cumene (CAS 98-82-8)		
Aquatic		
Crustacea EC50	Brine shrimp (Artemia sp.)	3.55 - 11.29 mg/l, 48 hours
Fish LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	2.7 mg/l, 96 hours
Xylene (Mixed Isomers) (CAS 1330-20-7)		
Aquatic		
Fish LC50	Bluegill (Lepomis macrochirus)	7.711 - 9.591 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability	No data is available on the degradability of this product.
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Bioaccumulative potential	No data available.
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Partition coefficient n-octanol / water (log Kow)

2-Butoxyethanol	0.83
2-Methyl-4-Pentanone	1.31
Cumene	3.66
Xylene (Mixed Isomers)	3.12 - 3.2

Mobility in soil	No data available.
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Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.
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13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
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Local disposal regulations	Dispose in accordance with all applicable regulations.
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Waste from residues / unused products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information**DOT BULK / NON-BULK:**

UN number	1993
Proper shipping name	Flammable Liquid, N.O.S., (Methyl Isobutyl Ketone, Petroleum Distillates)
Hazard class	3
Packing group	II
ERG code	128

15. Regulatory information**US federal regulations**

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory List.

CERCLA Hazardous Substance List (40 CFR 302.4)

2-Butoxyethanol (CAS 111-76-2)	Listed.
2-Methyl-4-Pentanone (CAS 108-10-1)	Listed.
Cumene (CAS 98-82-8)	Listed.
Xylene (Mixed Isomers) (CAS 1330-20-7)	Listed.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes
	Delayed Hazard - Yes
	Fire Hazard - Yes
	Pressure Hazard - No
	Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Yes

Hazardous chemical**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
2-Butoxyethanol	111-76-2	30-50
2-Methyl-4-Pentanone	108-10-1	30-50
1,2,4-Trimethylbenzene	95-63-6	0.1-10
Cumene	98-82-8	0.1-10
Xylene (Mixed Isomers)	1330-20-7	0.1-1.0

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

2-Methyl-4-Pentanone (CAS 108-10-1)
Cumene (CAS 98-82-8)
Xylene (Mixed Isomers) (CAS 1330-20-7)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

DEA Essential Chemical Code Number

2-Methyl-4-Pentanone (CAS 108-10-1) 6715

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

2-Methyl-4-Pentanone (CAS 108-10-1) 35 %WV

DEA Exempt Chemical Mixtures Code Number

2-Methyl-4-Pentanone (CAS 108-10-1) 6715

US state regulations

US. Massachusetts RTK - Substance List

1,2,4-Trimethylbenzene (CAS 95-63-6)
2-Butoxyethanol (CAS 111-76-2)
2-Methyl-4-Pentanone (CAS 108-10-1)
Cumene (CAS 98-82-8)
Xylene (Mixed Isomers) (CAS 1330-20-7)

US. New Jersey Worker and Community Right-to-Know Act

1,2,4-Trimethylbenzene (CAS 95-63-6)	500 LBS
2-Butoxyethanol (CAS 111-76-2)	500 LBS
2-Methyl-4-Pentanone (CAS 108-10-1)	500 LBS
Cumene (CAS 98-82-8)	500 LBS
Xylene (Mixed Isomers) (CAS 1330-20-7)	500 LBS

US. Pennsylvania RTK - Hazardous Substances

1,2,4-Trimethylbenzene (CAS 95-63-6)
2-Butoxyethanol (CAS 111-76-2)
2-Methyl-4-Pentanone (CAS 108-10-1)
Cumene (CAS 98-82-8)
Xylene (Mixed Isomers) (CAS 1330-20-7)

US. Rhode Island RTK

1,2,4-Trimethylbenzene (CAS 95-63-6)
2-Butoxyethanol (CAS 111-76-2)
2-Methyl-4-Pentanone (CAS 108-10-1)
Cumene (CAS 98-82-8)
Xylene (Mixed Isomers) (CAS 1330-20-7)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

2-Methyl-4-Pentanone (CAS 108-10-1)	Listed: November 4, 2011
Cumene (CAS 98-82-8)	Listed: April 6, 2010

US - California Proposition 65 - CRT: Listed date/Developmental toxin

2-Methyl-4-Pentanone (CAS 108-10-1)	Listed: March 28, 2014
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International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	01-18-2016
Version #	01
Disclaimer	This information is based on data available to us and is accurate and reliable to the best of our knowledge at the time of printing. However, no warranty is expressed or implied regarding the accuracy or completeness of the information contained herein. Final determination of the suitability of this material for the use contemplated is the sole responsibility of the user. Buyer assumes all risk and liabilities. Buyer accepts and uses this material on these conditions.



SAFETY DATA SHEET

Revision date 14-Jun-2016

Version 14

Supersedes Date: 01-Jun-2016

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Code V70S01AB

Product Name valPure (TM) V7001 CLEAR EXTERIOR

Other means of identification

No information available

Recommended use of the chemical and restrictions on use

Paint, Coatings

Details of the supplier of the safety data sheet

See section 16 for more information

The Valspar Corporation
PO Box 1461
Minneapolis, MN 55440

E-mail address msds@valspar.com

Emergency telephone number

United States of America 1-888-345-5732

American Samoa, Guam, Northern Mariana Islands, Puerto Rico, U.S. Virgin Islands 1-800-255-3924

Section 2: HAZARDS IDENTIFICATION

Classification

Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Carcinogenicity	Category 2
Reproductive toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 2
Flammable liquids	Category 2

Label elements

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Signal word

DANGER

HAZARD STATEMENTS

Highly flammable liquid and vapor
Harmful if inhaled
Causes skin irritation
Causes serious eye damage
Suspected of causing cancer
Suspected of damaging fertility or the unborn child
May cause damage to organs through prolonged or repeated exposure
May cause drowsiness or dizziness

PREVENTION

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Use only outdoors or in a well-ventilated area. Wash face, hands and any exposed skin thoroughly after handling. Do not breathe dust/fume/gas/mist/vapors/spray. P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ ventilating/ lighting/ equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

RESPONSE

IF exposed or concerned: Get medical advice/attention.

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Skin

If skin irritation occurs: Get medical advice/attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. Wash contaminated clothing before reuse.

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Ingestion

Do NOT induce vomiting. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Fire

In case of fire: Use CO₂, dry chemical, or foam for extinction.

STORAGE

Store locked up. Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool.

DISPOSAL

Dispose of contents/containers in accordance with local regulations.

HAZARDS NOT OTHERWISE CLASSIFIED (HNOC)

Not applicable.

OTHER HAZARDS

Not applicable.

UNKNOWN ACUTE TOXICITY

0% of the mixture consists of ingredient(s) of unknown toxicity.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	weight-%
Xylenes	1330-20-7	10 - 25
Cyclohexanone	108-94-1	10 - 25

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2-Pentanone, 4-methyl-	108-10-1	10 - 25
1-Butanol	71-36-3	3 - 5
Ethylbenzene	100-41-4	3 - 5
Toluene	108-88-3	0.3 - 1
Formaldehyde	50-00-0	100 ppm - <0.1%

*The exact percentage (concentration) of composition has been withheld as a trade secret.

Section 4: FIRST AID MEASURES

First Aid Measures

General advice

IF exposed or concerned: Get medical advice/attention.

Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Skin Contact

If skin irritation occurs: Get medical advice/attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. Wash contaminated clothing before reuse.

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Ingestion

Do NOT induce vomiting. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Most important symptoms and effects, both acute and delayed

Symptoms

No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians

Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

Suitable extinguishing media

Dry chemical, CO₂, water spray or alcohol-resistant foam.

Not to be used for safety reasons: Strong water jet

Specific hazards arising from the chemical

Burning produces heavy smoke. Fire may produce irritating and/or toxic gases. In the event of fire and/or explosion do not breathe fumes.

Special protective equipment for fire-fighters

Wear self-contained breathing apparatus and protective suit. Cool containers with flooding quantities of water until well after fire is out. Do not allow run-off from fire-fighting to enter drains or water courses.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions

Avoid breathing vapors or mists. Remove all sources of ignition. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. Take precautionary measures against static discharges.

For emergency responders

Use personal protection recommended in Section 8.

Environmental precautions

Do not allow into any sewer, on the ground or into any body of water. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.

Methods and material for containment and cleaning up

Methods for containment

Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Dispose of waste product or used containers according to local regulations. Clean with detergents. Avoid solvent cleaners. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labeled containers.

Section 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Prevent the creation of flammable or explosive concentrations of vapor in air and avoid vapor concentration higher than the occupational exposure limits. Operators should wear anti-static footwear and clothing and floors should be of the conducting type. Use personal protection recommended in Section 8. Never use pressure to empty container. Comply with the health and safety at work laws. Prevent product from entering drains. Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Do not breathe dust/fume/gas/mist/vapors/spray. Use only in well-ventilated areas. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. All equipment used when handling the product must be grounded.

General Hygiene Considerations

Avoid contact with skin, eyes or clothing. When using do not eat, drink or smoke. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep/store only in original container. Store in accordance with local regulations. Keep unauthorized personnel away. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Keep tightly closed in a dry and cool place.

Incompatible materials

Strong bases. Strong oxidizing agents. Strong reducing agents.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits

If S* appears in the OEL table, it indicates this chemical contains a skin notation.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Xylenes 1330-20-7	STEL: 150 ppm TWA: 100 ppm	TWA: 100 ppm TWA: 435 mg/m ³	
Cyclohexanone 108-94-1	STEL: 50 ppm TWA: 20 ppm S*	TWA: 50 ppm TWA: 200 mg/m ³	IDLH: 700 ppm TWA: 25 ppm TWA: 100 mg/m ³
2-Pentanone, 4-methyl- 108-10-1	STEL: 75 ppm TWA: 20 ppm	TWA: 100 ppm TWA: 410 mg/m ³	IDLH: 500 ppm TWA: 50 ppm TWA: 205 mg/m ³ STEL: 75 ppm STEL: 300 mg/m ³
1-Butanol 71-36-3	TWA: 20 ppm	TWA: 100 ppm TWA: 300 mg/m ³	IDLH: 1400 ppm Ceiling: 50 ppm Ceiling: 150 mg/m ³

Ethylbenzene 100-41-4	TWA: 20 ppm	TWA: 100 ppm TWA: 435 mg/m ³	IDLH: 800 ppm TWA: 100 ppm TWA: 435 mg/m ³ STEL: 125 ppm STEL: 545 mg/m ³
Toluene 108-88-3	TWA: 20 ppm	TWA: 200 ppm Ceiling: 300 ppm	IDLH: 500 ppm TWA: 100 ppm TWA: 375 mg/m ³ STEL: 150 ppm STEL: 560 mg/m ³
Formaldehyde 50-00-0	Ceiling: 0.3 ppm	TWA: 0.75 ppm STEL: 2 ppm see 29 CFR 1910.1048	IDLH: 20 ppm Ceiling: 0.1 ppm 15 min TWA: 0.016 ppm

Appropriate engineering controls

Engineering Controls

Ensure adequate ventilation, especially in confined areas. Provide local exhaust ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

Individual protection measures, such as personal protective equipment

Eye/face protection

Tight sealing safety goggles.

Skin and body protection

Wear suitable protective clothing. Personnel should wear anti-static clothing made of natural fiber or of high temperature resistant synthetic fiber.

Hand Protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed. Gloves should be replaced regularly and if there is any sign of damage to the glove material. Always ensure that gloves are free from defects and that they are stored and used correctly. The performance or effectiveness of the glove may be reduced by physical / chemical damage and poor maintenance. Wear protective gloves.

Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Thermal Protection

No information available

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid
Appearance	No information available
Odor	Ketones and their derivatives
Color	clear
Odor Threshold	No information available
pH value	No information available
Melting point/freezing point	No information available
Boiling point / boiling range	114 °C / 237 °F
flash point	22 °C / 72 °F
evaporation rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor Pressure	No information available
vapor density	No information available
Density (lbs per US gallon)	8.15
specific gravity	.97
Solubility(ies)	No information available

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Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	211 mm ² per second
Dynamic viscosity	No information available

Other information

Section 10: STABILITY AND REACTIVITY

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of Hazardous Reactions	None under normal processing.
Hazardous polymerization	None under normal processing.
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	Strong bases. Strong oxidizing agents. Strong reducing agents.
Hazardous Decomposition Products	Carbon monoxide. Carbon dioxide (CO ₂).

Section 11: TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye contact

Causes serious eye damage

Skin Contact

Causes skin irritation

Ingestion

Not applicable

Inhalation

May cause drowsiness or dizziness

Harmful if inhaled

Numerical measures of toxicity - Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Xylenes 1330-20-7	= 3500 mg/kg (Rat)	> 1700 mg/kg (Rabbit) > 4350 mg/kg (Rabbit)	= 29.08 mg/L (Rat) 4 h = 5000 ppm (Rat) 4 h
Cyclohexanone 108-94-1	= 1544 mg/kg (Rat)	= 947 mg/kg (Rabbit)	= 8000 ppm (Rat) 4 h
2-Pentanone, 4-methyl- 108-10-1	= 2080 mg/kg (Rat)	= 3000 mg/kg (Rabbit)	= 8.2 mg/L (Rat) 4 h
1-Butanol 71-36-3	= 700 mg/kg (Rat) = 790 mg/kg (Rat)	= 3402 mg/kg (Rabbit) = 3400 mg/kg (Rabbit)	> 8000 ppm (Rat) 4 h
Ethylbenzene 100-41-4	= 3500 mg/kg (Rat)	= 15400 mg/kg (Rabbit)	= 17.2 mg/L (Rat) 4 h
Toluene 108-88-3	= 2600 mg/kg (Rat)	= 12000 mg/kg (Rabbit)	= 12.5 mg/L (Rat) 4 h
Formaldehyde 50-00-0	= 100 mg/kg (Rat)	= 270 mg/kg (Rabbit)	= 0.578 mg/L (Rat) 4 h

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)	11665 Mg/kg
ATEmix (dermal)	5844 Mg/kg
ATEmix (inhalation-dust/mist)	3 mg/l
ATEmix (inhalation-vapor)	22 mg/l

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UNKNOWN ACUTE TOXICITY 0% of the mixture consists of ingredient(s) of unknown toxicity.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chemical Name	ACGIH	IARC	NTP	OSHA
Cyclohexanone 108-94-1	A3			
2-Pentanone, 4-methyl- 108-10-1	A3	Group 2B		X
Ethylbenzene 100-41-4	A3	Group 2B		X
Formaldehyde 50-00-0	A2	Group 1	Known	X

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen. A2 - Suspected Human Carcinogen.

IARC (International Agency for Research on Cancer)

Group 2B - Possibly Carcinogenic to Humans. Group 1 - Carcinogenic to Humans.

NTP (National Toxicology Program)

Known - Known Carcinogen.

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present.

Skin corrosion/irritation	Causes skin irritation
Serious eye damage/eye irritation	Causes serious eye damage
Skin sensitization	Not applicable
Respiratory sensitization	Not applicable
Germ cell mutagenicity	Not applicable
Carcinogenicity	Suspected of causing cancer
Reproductive Toxicity	Suspected of damaging fertility or the unborn child
Specific target organ toxicity (single exposure)	May cause drowsiness or dizziness
Specific target organ toxicity (repeated exposure)	May cause damage to organs through prolonged or repeated exposure
Aspiration hazard	Not applicable

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

Environmental precautions Prevent product from entering drains.

Persistence and degradability

No information available

Bioaccumulation

No information available

Mobility

No information available

Other adverse effects

No information available

Section 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Improper disposal or reuse of this container may be dangerous and illegal. Empty containers must be scrapped or reconditioned.

Section 14: TRANSPORT INFORMATION

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14.1 UN/ID no	DOT UN1263	IMDG UN1263	IATA UN1263
14.2 Proper shipping name	Paint	Paint	Paint
14.3 Hazard Class	3	3	3
14.4 Packing Group	II	II	II
14.5 Environmental hazard	Not applicable		
14.6 Special Provisions	149, B52, IB2, T4, TP1, TP8, TP28, 163, 367 367 Emergency Response Guide Number 128	EmS-No F-E, S-E	A3, A72, A192
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available		

The supplier may apply one of the following exceptions: Combustible Liquid (49 CFR 173.150(f)); Consumer Commodity (49 CFR 173.150(c), ICAO/IATA SP A112); Limited Quantity (49 CFR 173.150(b), ICAO Part 3 Chapter 4, IATA 2.7, IMDG Chapter 3.4); Viscous Liquid (49 CFR 173.121(b), IMDG 2.3.2.2, IATA 3.3.3.1.1, ICAO 3.2.2, ADR 2.2.3.1.5); Does Not Sustain Combustion (49 CFR 173.120(a), IATA 3.3.1.3, ICAO 3.1.3, IMDG 2.3.1.3, ADR 2.2.3.1.1 Note 1); or others as allowed under hazardous materials/dangerous goods regulations.

Section 15: REGULATORY INFORMATION

International Inventories

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

All components are listed or exempt from listing.

DSL - Canadian Domestic Substances List

Not all components are listed or exempt from listing

US Federal Regulations

Chemical Name	SARA 313 - Threshold Values %	Hazardous air pollutants (HAPs) content
Xylenes 1330-20-7 10 - 25	1	Present
2-Pentanone, 4-methyl- 108-10-1 10 - 25	1	Present
1-Butanol 71-36-3 3 - 5	1	
Ethylbenzene 100-41-4 3 - 5	0.1	Present
Toluene 108-88-3 0.3 - 1	1	Present

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Xylenes 1330-20-7	100 lb			X
Ethylbenzene 100-41-4	1000 lb	X	X	X
Toluene 108-88-3	1000 lb	X	X	X
Formaldehyde 50-00-0	100 lb			X

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AGHS - USA OSHA SDS

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Xylenes 1330-20-7	100 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ
Cyclohexanone 108-94-1	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
2-Pentanone, 4-methyl- 108-10-1	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
1-Butanol 71-36-3	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
Ethylbenzene 100-41-4	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ
Toluene 108-88-3	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ
Formaldehyde 50-00-0	100 lb	100 lb	RQ 100 lb final RQ RQ 45.4 kg final RQ

US State Regulations

Rule 66 status of product

Photochemically reactive.

California Proposition 65

WARNING! This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

U.S. EPA Label information

EPA Pesticide registration number Not applicable

U.S. State Right-to-Know Regulations

Chemical Name
Proprietary Non-Hazardous Ingredient - Proprietary CAS
Xylenes 1330-20-7
Cyclohexanone 108-94-1
Proprietary Non-Hazardous Ingredient - Proprietary CAS
2-Pentanone, 4-methyl- 108-10-1
1-Butanol 71-36-3
Ethylbenzene 100-41-4
Toluene 108-88-3
Formaldehyde 50-00-0

Section 16: OTHER INFORMATION

HMIS

Health hazards 3*

* = Chronic Health Hazard

Flammability 3

Physical hazards 0

Personal Protection X

Supplier Address

Product Code V70S01AB

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AGHS - USA OSHA SDS

The Valspar Corporation
2000 Georgetown Drive
Waterfront Office Park,
Building III
Sewickley, PA 15143
724-940-3800

The Valspar Corporation
2001 Tracy St.
Pittsburgh, PA, 15233
412-766-9300

The Valspar Corporation
372 Cleveland St.
Rochester, PA 15074
724-774-8550

Valspar Coatings
90 Carson Rd.
Birmingham, AL 35215
205-854-5454

Valspar Coatings
701 Shiloh Rd.
Garland, TX 75042
972-276-5181

Prepared By

Product Stewardship

Revision date

14-Jun-2016

Revision Note

No information available

Disclaimer

The information on this Safety Data Sheet (SDS) is based on the present state of our knowledge, current national legislation and guidelines. As the specific conditions of use of the product are outside the supplier's knowledge and control the user is responsible for ensuring that the requirements of relevant legislation are complied with. This SDS should not be construed as any guarantee of the technical performance or suitability for particular applications. **UNLESS SUPPLIER AGREES OTHERWISE IN WRITING, SUPPLIER MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AND DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR FREEDOM FROM PATENT INFRINGEMENT. SUPPLIER WILL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES.**

End of Safety Data Sheet

valspar

PACKAGING

2001 Tracy Street
Pittsburgh, PA 15233
Tel 412-766-9300
Fax 412-766-8953

Volatile Composition Report

(Data based on formulation)

Valspar Code: V70S01AB

CAS Number	Component	Weight Percent	Weight/Gallon	HAP
1330-20-7	XYLENE	17.8	7.23	✓
108-94-1	CYCLOHEXANONE	15.3	7.89	
108-65-6	PROPYLENE GLYCOL MONO METHYL ETHER ACETATE	12.9	8.06	
108-10-1	METHYL ISOBUTYL KETONE	9.9	6.68	✓
71-36-3	BUTANOL	3.9	6.75	
100-41-4	BENZENE, ETHYL	3.7	7.25	✓
111-90-0	DIETHYLENE GLYCOL MONOETHYL ETHER	0.8	8.23	✓
64-17-5	ETHANOL	0.4	6.58	
108-88-3	TOLUENE	0.3	7.26	✓

SUM: 65.0**Lbs HAP per gallon of solids: 9.32****HAP Total Weight%: 32.5**

9/21/2016

Safety Data Sheet

815547

THERMOSEALING VARNISH



Safety Data Sheet dated 5/10/2015, version 2

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Mixture identification:

Trade name: THERMOSEALING VARNISH

Trade code: 815547

Product type and use: Polyester resins mixed with solvents

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use:

Industrial use. Varnishing product for can coating and/or coil coating.

1.3. Details of the supplier of the safety data sheet

Supplier:

METLAC Spa - Strada statale 35 Bis dei Giovi, no.53 15062 Bosco Marengo [AL]

METLAC Spa - tel. 0131-291200 (office hours)

Competent person responsible for the safety data sheet:

sds@metlac.com

1.4. Emergency telephone number

METLAC Spa - tel. 0131-291200 (office hours)

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP):

- ⚠ Warning, Flam. Liq. 3, Flammable liquid and vapour.
- ⚠ Warning, Eye Irrit. 2, Causes serious eye irritation.
- ⚠ Warning, STOT SE 3, May cause drowsiness or dizziness.
- ⚠ Aquatic Chronic 2, Toxic to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Symbols:



Warning

Hazard statements:

H226 Flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P312 Call a POISON CENTER/ doctor/if you feel unwell.

P337+P313 If eye irritation persists: Get medical advice/attention.

P370+P378 In case of fire: Use ... to extinguish.

Special Provisions:

None

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THERMOSEALING VARNISH

Contents:

Hydrocarbons, C10, aromatics <1% naphthalene

1-Ethoxy-2-propylacetate

solvent naphtha (petroleum), light arom. - Note P

butan-1-ol

benzene-1,2,4-tricarboxylic acid 1,2-anhydride: May produce an allergic reaction.

Special provisions according to Annex XVII of REACH and subsequent amendments:

Restricted to professional users.

2.3. Other hazards

Other Hazards:

No other hazards

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

N.A.

vPvB Substances: None - PBT Substances: None

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Number	Classification
>= 15% - < 20%	Hydrocarbons, C10, aromatics <1% naphthalene	Index number: 649-424-00-3 EC: 918-811-1 REACH No.: 01- 2119463583 -34	⚠ 3.10/1 Asp. Tox. 1 H304 ⚠ 3.8/3 STOT SE 3 H336 ⚠ 4.1/C2 Aquatic Chronic 2 H411 EUH066
>= 10% - < 12.5%	Distillates (petroleum), hydrotreated light	Index number: 649-422-00-2 CAS: 64742-47-8 EC: 265-149-8	⚠ 3.10/1 Asp. Tox. 1 H304
>= 5% - < 7%	1-Ethoxy-2- propylacetate	Index number: 603-177-00-8 CAS: 54839-24-6 EC: 259-370-9 REACH No.: 01- 2119475116 -39	⚠ 2.6/3 Flam. Liq. 3 H226 ⚠ 3.8/3 STOT SE 3 H336
>= 3% - < 5%	2-butoxyethanol	Index number: 603-014-00-0 CAS: 111-76-2 EC: 203-905-0 REACH No.: 01- 2119475108 -36	⚠ 3.1/4/Inhal Acute Tox. 4 H332 ⚠ 3.1/4/Dermal Acute Tox. 4 H312 ⚠ 3.1/4/Oral Acute Tox. 4 H302 ⚠ 3.3/2 Eye Irrit. 2 H319 ⚠ 3.2/2 Skin Irrit. 2 H315
>= 3% - < 5%	solvent naphtha (petroleum), light arom. - Note P	Index number: 649-356-00-4 CAS: 64742-95-6 EC: 265-199-0 REACH No.: 01-	⚠ 2.6/3 Flam. Liq. 3 H226 ⚠ 3.8/3 STOT SE 3 H335 ⚠ 3.8/3 STOT SE 3 H336 ⚠ 4.1/C2 Aquatic Chronic 2 H411

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THERMOSEALING VARNISH

			2119455851 -35	EUH066
>= 3% - < 5%	xylene	Index number: CAS: EC: REACH No.:	601-022-00-9 1330-20-7 215-535-7 01- 2119488216 -32	2.6/3 Flam. Liq. 3 H226 3.1/4/Inhal Acute Tox. 4 H332 3.1/4/Dermal Acute Tox. 4 H312 3.2/2 Skin Irrit. 2 H315
>= 1% - < 3%	2-methoxy-1-methylethyl acetate	Index number: CAS: EC:	607-195-00-7 108-65-6 203-603-9	2.6/3 Flam. Liq. 3 H226
>= 1% - < 3%	Hydrocarbons, C10-C13, aromatics,< 1% naphthalene	CAS: EC: REACH No.:	1174522-16-7 922-153-0 01- 2119451097 -39	3.10/1 Asp. Tox. 1 H304 4.1/C2 Aquatic Chronic 2 H411 EUH066
>= 1% - < 3%	cyclohexanone	Index number: CAS: EC:	606-010-00-7 108-94-1 203-631-1	2.6/3 Flam. Liq. 3 H226 3.1/4/Inhal Acute Tox. 4 H332
>= 1% - < 3%	butan-1-ol	Index number: CAS: EC: REACH No.:	603-004-00-6 71-36-3 200-751-6 01- 2119484630 -38	2.6/3 Flam. Liq. 3 H226 3.1/4/Oral Acute Tox. 4 H302 3.8/3 STOT SE 3 H335 3.2/2 Skin Irrit. 2 H315 3.3/1 Eye Dam. 1 H318 3.8/3 STOT SE 3 H336
>= 1% - < 3%	toluene	Index number: CAS: EC: REACH No.:	601-021-00-3 108-88-3 203-625-9 01- 2119471310 -51	2.6/2 Flam. Liq. 2 H225 3.2/2 Skin Irrit. 2 H315 3.9/2 STOT RE 2 H373 3.10/1 Asp. Tox. 1 H304 3.8/3 STOT SE 3 H336 3.7/2 Repr. 2 H361d
>= 0.5% - < 1%	ethylbenzene	Index number: CAS: EC: REACH No.:	601-023-00-4 100-41-4 202-849-4 01- 2119892111 -44	2.6/2 Flam. Liq. 2 H225 4.1/C3 Aquatic Chronic 3 H412 3.1/4/Inhal Acute Tox. 4 H332 3.9/2 STOT RE 2 H373 3.10/1 Asp. Tox. 1 H304
>= 0.25% - < 0.5%	E-caprolactam	Index number: CAS: EC:	613-069-00-2 105-60-2 203-313-2	3.1/4/Inhal Acute Tox. 4 H332 3.1/4/Oral Acute Tox. 4 H302 3.3/2 Eye Irrit. 2 H319 3.8/3 STOT SE 3 H335

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THERMOSEALING VARNISH

			3.2/2 Skin Irrit. 2 H315
>= 0.1% - < 0.25%	benzene-1,2,4- tricarboxylic acid 1,2- anhydride	Index number: CAS: EC: 607-097-00-4 552-30-7 209-008-0	3.8/3 STOT SE 3 H335 3.3/1 Eye Dam. 1 H318 3.4.1/1-1A-1B Resp. Sens. 1,1A, 1B H334 3.4.2/1-1A-1B Skin Sens. 1,1A, 1B H317
>= 0.1% - < 0.25%	Naphtalene	CAS: 91-20-3	3.1/4/Oral Acute Tox. 4 H302 3.3/2 Eye Irrit. 2 H319 3.6/2 Carc. 2 H351 4.1/A1 Aquatic Acute 1 H400 4.1/C1 Aquatic Chronic 1 H410
>= 0.001% - < 0.01%	methanol	Index number: CAS: EC: REACH No.: 603-001-00-X 67-56-1 200-659-6 01- 2119433307 -44	2.6/2 Flam. Liq. 2 H225 3.1/2/Inhal Acute Tox. 2 H330 3.1/3/Dermal Acute Tox. 3 H311 3.1/3/Oral Acute Tox. 3 H301 3.8/1 STOT SE 1 H370

4. FIRST AID MEASURES

4.1. Description of first aid measures: for those who give the first aid treatments, wear appropriate personal protective equipment (PPE)

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose off safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

4.2. Most important symptoms and effects, both acute and delayed

None

4.3. Indication of any immediate medical attention and special treatment needed

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

None

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media:

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THERMOSEALING VARNISH

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke with formation of CO_x, SO_x, NO_x.

5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove all sources of ignition.

Remove persons to safety.

See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

Wash with plenty of water.

6.4. Reference to other sections

See also section 8 and 13

7. HANDLING AND STORAGE

7.1. Precautions for safe handling: avoid the accumulation of electrostatic charges.

Avoid contact with skin and eyes, inhalation of vapours and mists.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Store at below 20 °C. Keep away from unguarded flame and heat sources. Avoid direct exposure to sunlight.

Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Cool and adequately ventilated.

7.3. Specific end use(s)

None in particular

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

2-butoxyethanol - CAS: 111-76-2

EU - LTE(8h): 98 mg/m³, 20 ppm - STE: 246 mg/m³, 50 ppm - Notes: Bold-type:

Indicative Occupational Exposure Limit Values [2,3] and Limit Values for Occupational Exposure [4] (for references see bibliography)

ACGIH - LTE(8h): 20 ppm - Notes: A3, BEI - Eye and URT irr

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THERMOSEALING VARNISH

xylene - CAS: 1330-20-7

EU - LTE(8h): 221 mg/m³, 50 ppm - STE: 442 mg/m³, 100 ppm - Notes: Bold-type: Indicative Occupational Exposure Limit Values [2,3] and Limit Values for Occupational Exposure [4] (for references see bibliography)

ACGIH - LTE(8h): 100 ppm - STE: 150 ppm - Notes: A4, BEI - URT and eye irr, CNS impair

2-methoxy-1-methylethyl acetate - CAS: 108-65-6

EU - LTE(8h): 275 mg/m³, 50 ppm - STE: 550 mg/m³, 100 ppm - Notes: Indicative Occupational Exposure Limit Values [2,3] and Limit Values for Occupational Exposure [4] (for references see bibliography)

TLV-TWA - 275 mg/m³ - 50 ppm

TLV-STEL - 550 mg/m³ - 100ppm

cyclohexanone - CAS: 108-94-1

EU - LTE(8h): 40,8 mg/m³, 10 ppm - STE: 81,6 mg/m³, 20 ppm - Notes: Bold-type: Indicative Occupational Exposure Limit Values [2,3] and Limit Values for Occupational Exposure [4] (for references see bibliography)

ACGIH - LTE(8h): 20 ppm - STE: 50 ppm - Notes: Skin, A3 - Eye and URT irr

butan-1-ol - CAS: 71-36-3

ACGIH - LTE(8h): 20 ppm - Notes: Eye and URT irr

toluene - CAS: 108-88-3

EU - LTE(8h): 192 mg/m³, 50 ppm - STE: 384 mg/m³, 100 ppm - Notes: Bold-type: Indicative Occupational Exposure Limit Values [2,3] and Limit Values for Occupational Exposure [4] (for references see bibliography)

ACGIH - LTE(8h): 20 ppm - Notes: A4, BEI - Visual impair, female repro, pregnancy loss

ethylbenzene - CAS: 100-41-4

EU - LTE(8h): 442 mg/m³, 100 ppm - STE: 884 mg/m³, 200 ppm - Notes: Bold-type: Indicative Occupational Exposure Limit Values [2,3] and Limit Values for Occupational Exposure [4] (for references see bibliography)

ACGIH - LTE(8h): 20 ppm - Notes: A3, BEI - URT irr, kidney dam (nephropathy), cochlear impair

E-caprolactam - CAS: 105-60-2

EU - LTE(8h): 10 mg/m³ - STE: 40 mg/m³ - Notes: Bold-type: Indicative Occupational Exposure Limit Values [2,3] and Limit Values for Occupational Exposure [4] (for references see bibliography)

ACGIH - LTE(8h): 5 mg/m³ - Notes: A5, (IFV) - URT irr

benzene-1,2,4-tricarboxylic acid 1,2-anhydride - CAS: 552-30-7

ACGIH - LTE(8h): 0,0005 mg/m³ - STE: 0,002 mg/m³ - Notes: Skin, DSEN, RSEN - Resp sens

methanol - CAS: 67-56-1

EU - LTE(8h): 260 mg/m³, 200 ppm - Notes: Bold-type: Indicative Occupational Exposure Limit Values [2,3] and Limit Values for Occupational Exposure [4] (for references see bibliography)

ACGIH - LTE(8h): 200 ppm - STE: 250 ppm - Notes: Skin BEI - Headache, eye dam, dizziness, nausea

DNEL Exposure Limit Values

2-butoxyethanol - CAS: 111-76-2

Worker Professional: 89 mg/kg - Consumer: 44.5 mg/kg - Exposure: Human Dermal - Frequency: Short Term, systemic effects

Worker Professional: 633 mg/m³ - Consumer: 426 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, systemic effects

Consumer: 13.4 mg/kg - Exposure: Human Oral - Frequency: Short Term, systemic effects

Worker Professional: 246 mg/m³ - Consumer: 123 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, local effects

Worker Professional: 75 mg/kg - Consumer: 38 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

butan-1-ol - CAS: 71-36-3

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THERMOSEALING VARNISH

Worker Professional: 310 mg/m³ - Consumer: 55 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, local effects
Consumer: 3.125 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

PNEC Exposure Limit Values

2-butoxyethanol - CAS: 111-76-2

Worker Professional: 8.8 mg/l - Exposure: Environment: Water Acqua dolce

Worker Professional: 0.88 mg/l - Exposure: Environment: Water Acqua di mare

Worker Professional: 2.8 mg/kg - Exposure: Environment: Soil

butan-1-ol - CAS: 71-36-3

Consumer: 0.082 mg/l - Exposure: Environment: Water acqua dolce

Consumer: 0.0082 mg/l - Exposure: Environment: Water acqua salata

Consumer: 0.015 mg/kg - Exposure: Environment: Soil

8.2. Exposure controls

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

The provided information, as to the types of specific gloves, are base on published literature and glove manufacturer data. Work conditions can greatly effect on the adequacy and reliability of the gloves, so is recommended to contact the manufactures of gloves for this information.

Inspect and replace worn or damaged gloves

Use protective gloves, comply with EN374, that provides total protection of nitrile rubber, butyl, neoprene or PVC (minimum thickness 0,5 mm).

Respiratory protection:

Use adequate protective respiratory equipment.

Thermal Hazards:

None

Environmental exposure controls:

None

Appropriate engineering controls:

None

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes:
Appearance and colour:	Liquido trasparente	--	--
Odour:	Caratteristico	--	--
Odour threshold:	N.A.	--	--
pH:	--	--	--
Melting point / freezing point:	N.A.	--	--
Initial boiling point and boiling range:	210°C - 230°C	--	--
Flash point:	51°C; 123.8°F °C	--	--

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THERMOSEALING VARNISH

Evaporation rate:	N.A.	--	--
Solid/gas flammability:	N.A.	--	--
Upper/lower flammability or explosive limits:	N.A.	--	--
Vapour pressure:	N.A.	--	--
Vapour density:	N.A.	--	--
Relative density:	0,980 <> 0,015 g a 20°C	--	--
Solubility in water:	5 g/l	--	--
Solubility in oil:	N.A.	--	--
Partition coefficient (n-octanol/water):	N.A.	--	--
Auto-ignition temperature:	> 200°C	--	--
Decomposition temperature:	N.A.	--	--
Viscosity:	N.A.	--	--
Explosive properties:	Limite inf. 1% in vol. - Limite sup 10% in vol.	--	--
Oxidizing properties:	Yes	--	--

9.2. Other information

Properties	Value	Method:	Notes:
Miscibility:	N.A.	--	--
Fat Solubility:	N.A.	--	--
Conductivity:	N.A.	--	--
Substance Groups relevant properties	N.A.	--	--

10. STABILITY AND REACTIVITY

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

None

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THERMOSEALING VARNISH

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

Avoid contact with combustible materials. The product could catch fire.

10.6. Hazardous decomposition products

CO_x, SO_x, NO_x.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Toxicological information of the mixture:

N.A.

Toxicological information of the main substances found in the mixture:

toluene - CAS: 108-88-3

a) acute toxicity:

Test: LC50 - Route: Inhalation - Species: Rat > 20 mg/l - Duration: 4h

2-butoxyethanol - CAS: 111-76-2

OBSERVATIONS ON HUMAN SUBJECTS:

probable lethal oral dose: 50-500 mg/Kg.

Following repeated and/or prolonged exposure, it causes headache, drowsiness, debility, stuttering, tremors, blurred vision, albuminuria and damage to the bone marrow.

xylene - CAS: 1330-20-7

OBSERVATIONS ON HUMAN SUBJECTS NON-PROFESSIONAL EXPOSURE - Effects following acute exposure:

Symptoms of intense exposure are: dermatitis, eczema, irritation to the eyes and to the respiratory tract.

Inhaling the vapours can cause dizziness, headache, nausea, incoordination, excitability, narcosis, anaemia, and paraesthesia of the hands and feet.

PROFESSIONAL EXPOSURE - Effects following acute exposure:

Narcotic at high concentrations.

Irritation through inhalation at 200 ppm (TCLo). Inhalation of 200 ppm has irritating effects in human subjects.

Human subject (oral)(LDLo): 50 mg/kg.

Inhalatory human subject (LCLo) 10000 ppm/6h.

cyclohexanone - CAS: 108-94-1

OBSERVATIONS ON HUMAN SUBJECTS:

effects following acute exposure inhalatory TCL: 50 ppm.

Inhibition for exposure at 50 ppm is not assured: at 75 ppm there is irritation to the eyes, nose, and respiratory tract.

Narcotic properties.

butan-1-ol - CAS: 71-36-3

OBSERVATIONS ON HUMAN SUBJECTS:

Exposure through inhalation causes coughing, irritation to the mucous membranes, dermatitis, headache, dizziness and drowsiness, irritation to the nose, throat and eyes, and the formation of translucent vacuoles on the surface layer of the cornea.

toluene - CAS: 108-88-3

OBSERVATIONS ON HUMAN SUBJECTS - NON-PROFESSIONAL EXPOSURE Effects following acute exposure:

At 200 ppm: mild but definite decrease in co-ordination and in reaction time, fatigue, confusion, paraesthesia of the skin; the fatigue lasted over a number of hours together with mild insomnia.

At 400 ppm: worsening of symptoms and mental confusion.

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THERMOSEALING VARNISH

If not differently specified, the information required in Regulation (EU)2015/830 listed below must be considered as N.A.:

- a) acute toxicity;
- b) skin corrosion/irritation;
- c) serious eye damage/irritation;
- d) respiratory or skin sensitisation;
- e) germ cell mutagenicity;
- f) carcinogenicity;
- g) reproductive toxicity;
- h) STOT-single exposure;
- i) STOT-repeated exposure;
- j) aspiration hazard.

12. ECOLOGICAL INFORMATION

12.1. Toxicity

Adopt sound working practices, so that the product is not released into the environment.

toluene - CAS: 108-88-3

Endpoint: LC50 - Species: Fish - Duration h: 96 - mg/l: 5.8

Endpoint: EC50 - Species: Daphnia - Duration h: 24 - mg/l: 7

Endpoint: EC50 - Species: Algae - Duration h: 72 - mg/l: 12.5

Endpoint: NOEC - Species: Fish - Duration h: 9600 - mg/l: 1.4

12.2. Persistence and degradability

None

N.A.

12.3. Bioaccumulative potential

N.A.

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

12.6. Other adverse effects

None

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

14. TRANSPORT INFORMATION

14.1. UN number

UN number: 1263

EmS : EmS Fire F-E, EmS Spill S-E

14.2. UN proper shipping name

UN proper shipping name: PAINT

14.3. Transport hazard class(es)

Road (ADR): Classe 3

Air (ICAO/IATA): Classe 3

Sea (IMO): Classe 3

14.4. Packing group

14.5. Environmental hazards

Marine pollutant: p

14.6. Special precautions for user

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THERMOSEALING VARNISH

Mfrag: 310

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
N.A.

15. REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
Dir. 98/24/EC (Risks related to chemical agents at work)
Dir. 2000/39/EC (Occupational exposure limit values)
Regulation (EC) n. 1907/2006 (REACH)
Regulation (EC) n. 1272/2008 (CLP)
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
Regulation (EU) 2015/830
Regulation (EU) n. 286/2011 (ATP 2 CLP)
Regulation (EU) n. 618/2012 (ATP 3 CLP)
Regulation (EU) n. 487/2013 (ATP 4 CLP)
Regulation (EU) n. 944/2013 (ATP 5 CLP)
Regulation (EU) n. 605/2014 (ATP 6 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

Restriction 3

Restriction 40

Restrictions related to the substances contained:

Restriction 28

Restriction 29

Restriction 30

Restriction 48

Where applicable, refer to the following regulatory provisions :

Directive 82/501/EEC ('Activities linked to risks of serious accidents') and subsequent amendments.

Regulation (EC) nr 648/2004 (detergents).

1999/13/EC (VOC directive)

Provisions related to directives 82/501/EC(Seveso), 96/82/EC(Seveso II):

N.A.

15.2. Chemical safety assessment

No

16. OTHER INFORMATION

Text of phrases referred to under heading 3:

H304 May be fatal if swallowed and enters airways.

H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

EUH066 Repeated exposure may cause skin dryness or cracking.

H226 Flammable liquid and vapour.

H332 Harmful if inhaled.

H312 Harmful in contact with skin.

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

H315 Causes skin irritation.

H335 May cause respiratory irritation.

H318 Causes serious eye damage.

H225 Highly flammable liquid and vapour.

H373 May cause damage to organs through prolonged or repeated exposure if inhaled.

H361d Suspected of damaging the unborn child.

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THERMOSEALING VARNISH

H412 Harmful to aquatic life with long lasting effects.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H330 Fatal if inhaled.

H311 Toxic in contact with skin.

H301 Toxic if swallowed.

H370 Causes damage to organs if inhaled, in contact with skin and if swallowed.

Modified section versus the previous version:

2. HAZARDS IDENTIFICATION

3. COMPOSITION/INFORMATION ON INGREDIENTS

9. PHYSICAL AND CHEMICAL PROPERTIES

11. TOXICOLOGICAL INFORMATION

14. TRANSPORT INFORMATION

15. REGULATORY INFORMATION

This document was prepared by a competent person who has received appropriate training.

MAIN BIBLIOGRAPHIC SOURCES:

NIOSH - Registry of toxic effects of chemical substances (1983)

I.N.R.S. - Fiche Toxicologique

CCNL - Appendix 1 "TLV for 1989-90"

Istituto Superiore di Sanità- Chemical Substances National Inventory

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.



Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product ID: 9009947VR
Product Name: 9009947VR ALUM DSPRSN
Product Use: Paint product.
Print date: 28/Mar/2013
Revision Date: 28/Mar/2013

Company Identification

The Valspar Corporation - Packaging Division
2001 Tracy St.
Pittsburgh, PA 15233

Manufacturer's Phone: 1-412-766-9300

24-Hour Medical Emergency Phone: 1-888-345-5732

2. HAZARDS IDENTIFICATION

Primary Routes of Exposure:

Inhalation
Ingestion
Skin absorption

Eye Contact:

- Severe eye irritation
- Risk of serious damage to eyes.

Skin Contact:

- Causes skin irritation.
- May cause defatting of the skin.
- Dermatitis
- Harmful if absorbed through skin.
- Can be absorbed through skin.
- May cause sensitization by skin contact.

Ingestion:

- Irritation of the mouth, throat, and stomach.
- Harmful if swallowed.
- Aspiration hazard if swallowed - can enter lungs and cause damage.

Inhalation:

- Causes respiratory tract irritation.
- Harmful by inhalation.
- May cause chemical pneumonia.
- May cause damage to nasal and respiratory passages.
- May cause bronchopneumonia or bronchitis.
- May cause pulmonary edema.
- May cause sensitization by inhalation.

Target Organ and Other Health Effects:

- Kidney injury may occur.
- Causes headache, drowsiness or other effects to the central nervous system.
- Unconsciousness
- Blood disorders
- Liver injury may occur.
- Hearing loss.
- Risk of serious damage to the lungs (by inhalation).

This product contains ingredients that may contribute to the following potential chronic health effects:

- Notice: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.
- Possible sensitization.
- Contains formaldehyde which is considered a potential carcinogen by the Occupational Health and Safety Administration.

Carcinogens:

- Possible cancer hazard. Contains material which may cause cancer based on animal data.
- Cancer hazard. Contains material which can cause cancer.

3. COMPOSITION / INFORMATION ON HAZARDOUS INGREDIENTS

Ingredient Name CAS-No.	Approx. Weight %	Chemical Name
AROMATIC NAPHTHA, LIGHT 64742-95-6	20 - 25	Petroleum naphtha, light aromatic
DIACETONE ALCOHOL 123-42-2	10 - 15	Diacetone alcohol
1,2,4-TRIMETHYLBENZENE 95-63-6	10 - 15	1,2,4-Trimethylbenzene
ISOPHORONE 78-59-1	5 - 10	Isophorone
PROPRIETARY RESIN	5 - 10	PROPRIETARY RESIN
ALUMINUM 7429-90-5	1 - 5	Aluminum

3. COMPOSITION / INFORMATION ON HAZARDOUS INGREDIENTS

METHYL ISOBUTYL KETONE 108-10-1	1 - 5	Methylisobutyl ketone
XYLENE 1330-20-7	1 - 5	Xylenes (o-, m-, p- isomers)
N-BUTYL ALCOHOL 71-36-3	1 - 5	n-Butyl alcohol
STODDARD SOLVENT 8052-41-3	1 - 5	Stoddard solvent
CUMENE 98-82-8	.1 - 1	Cumene
ETHYLBENZENE 100-41-4	.1 - 1	Ethyl benzene
FORMALDEHYDE 50-00-0	0 - .099	Formaldehyde

If this section is blank there are no hazardous components per OSHA guidelines.

4. FIRST AID MEASURES

Eye Contact:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. If medical assistance is not immediately available, flush an additional 15 minutes. Get medical attention immediately.

Skin Contact:

Remove contaminated clothing and shoes. Wash off immediately with plenty of water for at least 15 minutes. Get medical attention, if symptoms develop or persist.

Ingestion:

Rinse mouth with water. Give one or two glasses of water. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. If vomiting occurs, keep head lower than hips to prevent aspiration. Get medical attention immediately.

Inhalation:

Move injured person into fresh air and keep person calm under observation. Get medical attention immediately. For breathing difficulties, oxygen may be necessary. If breathing stops, provide artificial respiration. Place unconscious person on the side in the recovery position and ensure breathing.

Medical conditions aggravated by exposure:

Any respiratory or skin condition.

5. FIRE FIGHTING MEASURES

Flash point (Fahrenheit):	114
Flash point (Celsius):	46
Lower explosive limit (%):	1
Upper explosive limit (%):	11
Autoignition temperature:	not determined
Sensitivity to impact:	no
Sensitivity to static discharge:	Can be sensitive to static discharge hazards. Please see bonding and grounding information in Section 7.
Hazardous combustion products:	See Section 10.

Unusual fire and explosion hazards:

None known.

Extinguishing media:

Carbon dioxide, dry chemical, foam and/or water fog.

Fire fighting procedures:

Firefighters should be equipped with self-contained breathing apparatus and turn out gear. Keep containers and surroundings cool with water spray.

6. ACCIDENTAL RELEASE MEASURES

Action to be taken if material is released or spilled:

Ventilate the area. Avoid breathing dust or vapor. Use self-containing breathing apparatus or airmask for large spills in a confined area. Wipe, scrape or soak up in an inert material and put in a container for disposal. See section 7, "Handling and Storage", for proper container and storage procedures. Remove all sources of ignition. Soak up with inert absorbent material. Use only non-sparking tools. Avoid all personal contact.

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage:

This coating contains aluminum pigment, store in a dry area. Aluminum may react with water, acids and caustics slowly producing gas and heat. In a sealed drum this may cause a pressure build-up over a period of time and drum should be vented before opening. Keep away from heat, sparks and open flame. - No smoking. Keep container closed when not in use. Do not store above 120 degrees F. (49 degrees C). Based on flash point and vapor pressure, suitable storage should be provided in accordance with OSHA regulation 1910.106, Ontario OH&S regulation 851 section 22. Empty containers may contain product residue, including flammable or explosive vapors. Do not cut, puncture or weld on or near container. All label warnings must be observed until the container has been commercially cleaned or reconditioned. If the product is used near or above the flashpoint, an ignition hazard may be present. Activities, uses, or operations which liberate vapor (such as mixing or free fall of liquids) may also present an ignition hazard. Please ensure containers and other interconnected equipment are properly bonded and grounded at all times.

8. PERSONAL PROTECTIVE EQUIPMENT AND EXPOSURE CONTROLS

Personal Protective Equipment**Eye and face protection:**

Wear chemical goggles with splash shields or face shield. Contact lenses should not be worn when working with chemicals because contact lenses may contribute to the severity of an eye injury in case of exposure.

Skin protection:

Gloves: Neoprene or other nonporous.

Other Personnel Protection Data:

To prevent skin contact wear protective clothing covering all exposed areas. Ensure that eyewash stations and safety showers are close to the workstation location. Chemical resistant apron

Respiratory protection:

If exposure cannot be controlled below applicable limits, use the appropriate NIOSH approved respirator such as an air purifying respirator with organic vapor cartridge and dust/mist filter. Consult the respirator manufacturer's literature to ensure that the respirator will provide adequate protection. Read and follow all respirator manufacturer's instructions.

Ventilation

Use only in well-ventilated areas. Ensure adequate ventilation, especially in confined areas. Ovens used for curing should contain a fresh air purge to prevent vapours from accumulating and creating a possible explosive mixture. Where the product is used in a hazardous classified area, use explosion-proof electrical/ventilating/lighting/equipment.

Exposure Guidelines**OSHA Permissible Exposure Limits (PEL's)**

Ingredient Name CAS-No.	Approx. Weight %	TWA (final)	Ceilings limits (final)	Skin designations
DIACETONE ALCOHOL 123-42-2	10 - 15	240 mg/m ³ TWA 50 ppm TWA		
ISOPHORONE 78-59-1	5 - 10	140 mg/m ³ TWA 25 ppm TWA		
ALUMINUM 7429-90-5	1 - 5	15 mg/m ³ TWA dust total 5 mg/m ³ TWA respirable fraction		
METHYL ISOBUTYL KETONE 108-10-1	1 - 5	100 ppm TWA 410 mg/m ³ TWA		
XYLENE 1330-20-7	1 - 5	100 ppm TWA 435 mg/m ³ TWA		
N-BUTYL ALCOHOL 71-36-3	1 - 5	100 ppm TWA 300 mg/m ³ TWA		
STODDARD SOLVENT 8052-41-3	1 - 5	2900 mg/m ³ TWA 500 ppm TWA		
CUMENE 98-82-8	.1 - 1	245 mg/m ³ TWA 50 ppm TWA		prevent or reduce skin absorption
ETHYLBENZENE 100-41-4	.1 - 1	100 ppm TWA 435 mg/m ³ TWA		
FORMALDEHYDE 50-00-0	0 - .099	0.75 ppm TWA		

ACGIH Threshold Limit Value (TLV's)

Ingredient Name CAS-No.	Approx. Weight %	TWA	STEL	Ceiling limits	Skin designations
DIACETONE ALCOHOL 123-42-2	10 - 15	50 ppm TWA			
1,2,4-TRIMETHYLBENZENE 95-63-6	10 - 15	25 PPM			
ISOPHORONE 78-59-1	5 - 10			5 ppm Ceiling	
ALUMINUM 7429-90-5	1 - 5	1 mg/m ³ TWA respirable fraction			
METHYL ISOBUTYL KETONE 108-10-1	1 - 5	20 ppm TWA	75 ppm STEL		
XYLENE 1330-20-7	1 - 5	100 ppm TWA	150 ppm STEL		
N-BUTYL ALCOHOL 71-36-3	1 - 5	20 ppm TWA			
STODDARD SOLVENT 8052-41-3	1 - 5	100 ppm TWA			
CUMENE 98-82-8	.1 - 1	50 ppm TWA			
ETHYLBENZENE 100-41-4	.1 - 1	100 ppm TWA	125 ppm STEL		
FORMALDEHYDE 50-00-0	0 - .099			0.3 ppm Ceiling	

9. PHYSICAL PROPERTIES

Odor:	Normal for this product type.
Physical State:	liquid
pH:	not determined
Vapor pressure:	90.2255639 mmHg @ 77°F (25°C)
Vapor density (air = 1.0):	5
Boiling point:	237.2°F (114°C)
Solubility in water:	not determined
Coefficient of water/oil distribution:	not determined
Density (lbs per US gallon):	8.45
Specific Gravity:	1.02
Evaporation rate (butyl acetate = 1.0):	1.6
Flash point (Fahrenheit):	114
Flash point (Celsius):	46
Lower explosive limit (%):	1
Upper explosive limit (%):	11
Autoignition temperature:	not determined

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	This product may react with water, acids, and caustics, slowly producing gas and heat. Heat.
Incompatibility:	Strong oxidizing agents
Hazardous Polymerization:	None anticipated.
Hazardous Decomposition Products:	Carbon monoxide and carbon dioxide. Halogenated compounds

Sensitivity to static discharge:	Can be sensitive to static discharge hazards. Please see bonding and grounding information in Section 7.
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11. TOXICOLOGICAL INFORMATION

Ingredient Name CAS-No.	Approx. Weight %	NIOSH - Selected LD50s and LC50s
AROMATIC NAPHTHA, LIGHT 64742-95-6	20 - 25	= 3400 ppm Inhalation LC50 Rat 4 h = 8400 mg/kg Oral LD50 Rat > 2000 mg/kg Dermal LD50 Rabbit > 5.2 mg/L Inhalation LC50 Rat 4 h
DIACETONE ALCOHOL 123-42-2	10 - 15	= 13500 mg/kg Dermal LD50 Rabbit = 4 g/kg Oral LD50 Rat
1,2,4-TRIMETHYLBENZENE 95-63-6	10 - 15	= 18 g/m ³ Inhalation LC50 Rat 4 h = 3400 mg/kg Oral LD50 Rat > 3160 mg/kg Dermal LD50 Rabbit
ISOPHORONE 78-59-1	5 - 10	= 1390 mg/kg Dermal LD50 Rat = 1870 mg/kg Oral LD50 Rat = 7 mg/L Inhalation LC50 Rat 4 h
METHYL ISOBUTYL KETONE 108-10-1	1 - 5	= 2080 mg/kg Oral LD50 Rat = 8.2 mg/L Inhalation LC50 Rat 4 h > 16000 mg/kg Dermal LD50 Rabbit
XYLENE 1330-20-7	1 - 5	= 4300 mg/kg Oral LD50 Rat = 47635 mg/L Inhalation LC50 Rat 4 h = 5000 ppm Inhalation LC50 Rat 4 h > 1700 mg/kg Dermal LD50 Rabbit

11. TOXICOLOGICAL INFORMATION

N-BUTYL ALCOHOL 71-36-3	1 - 5	= 3400 mg/kg Dermal LD50 Rabbit = 790 mg/kg Oral LD50 Rat = 8000 ppm Inhalation LC50 Rat 4 h > 17.7 mg/L Inhalation LC50 Rat 4 h
CUMENE 98-82-8	.1 - 1	= 1400 mg/kg Oral LD50 Rat = 39000 mg/m ³ Inhalation LC50 Rat 4 h > 3160 mg/kg Dermal LD50 Rabbit
ETHYLBENZENE 100-41-4	.1 - 1	= 15354 mg/kg Dermal LD50 Rabbit = 17.2 mg/L Inhalation LC50 Rat 4 h = 3500 mg/kg Oral LD50 Rat
FORMALDEHYDE 50-00-0	0 - .099	= 0.578 mg/L Inhalation LC50 Rat 4 h = 500 mg/kg Oral LD50 Rat

Mutagens/Teratogens/Carcinogens:

Possible mutagen

Possible cancer hazard. Contains material which may cause cancer based on animal data. Cancer hazard. Contains material which can cause cancer.

Contains ethylbenzene, which has been determined by NTP to be an animal carcinogen with no known relevance to humans. IARC has classified ethylbenzene as possibly carcinogenic to humans (2b) on the basis of sufficient evidence of carcinogenicity in laboratory animals but inadequate evidence of cancer in humans.

Ingredient Name CAS-No.	Approx. Weight %	California Prop 65 - Reproductive (Female)	California Prop 65 - Carcinogen
METHYL ISOBUTYL KETONE 108-10-1	1 - 5		carcinogen, initial date 11/04/11
CUMENE 98-82-8	.1 - 1		carcinogen, initial date 4/6/10
ETHYLBENZENE 100-41-4	.1 - 1		Listed. initial date 6/11/04 - carcinogen
FORMALDEHYDE 50-00-0	0 - .099		Listed. initial date 1/1/88 - carcinogen

Ingredient Name CAS-No.	Approx. Weight %	IARC Group 1 - Human Evidence	IARC Group 2A - Limited Human Data	IARC Group 2B - Sufficient Animal Data
METHYL ISOBUTYL KETONE 108-10-1	1 - 5			Monograph 101 [in preparation]
CUMENE 98-82-8	.1 - 1			Monograph 101 [in preparation]
ETHYLBENZENE 100-41-4	.1 - 1			Monograph 77 [2000]
FORMALDEHYDE 50-00-0	0 - .099	Supplement 7 [1987] Monograph 62 [1995] Supplement 7 [1987]		

Ingredient Name CAS-No.	Approx. Weight %	NTP Known Carcinogens	NTP Suspect Carcinogens
FORMALDEHYDE 50-00-0	0 - .099		Reasonably Anticipated To Be A Human Carcinogen

Ingredient Name CAS-No.	Approx. Weight %	OSHA - Hazard Communication Carcinogens	OSHA - Specifically Regulated Carcinogens	ACGIH Carcinogens
ISOPHORONE 78-59-1	5 - 10			A3 Confirmed Animal Carcinogen with Unknown Relevance to Humans
METHYL ISOBUTYL KETONE 108-10-1	1 - 5			A3 Confirmed Animal Carcinogen with Unknown Relevance to Humans
ETHYLBENZENE 100-41-4	.1 - 1	Present		A3 Confirmed Animal Carcinogen with Unknown Relevance to Humans
FORMALDEHYDE 50-00-0	0 - .099	Present	Irritant and potential cancer hazard - see 29 CFR 1910.1048	A2 Suspected Human Carcinogen

12. ECOLOGICAL DATA

No information on ecology is available.

13. DISPOSAL CONSIDERATIONS

Disposal should be made in accordance with federal, state and local regulations.

14. TRANSPORTATION INFORMATION

U.S. Department of Transportation

UN ID Number (msds):	UN1263
Proper Shipping Name:	PAINT
Hazard Class:	COMBUSTIBLE LIQUID
Packing Group:	III

U.S Hazmat and/or International DG shipment exceptions

The supplier may apply one of the following exceptions: Combustible Liquid, Consumer Commodity, Limited Quantity, Viscous Liquid, Does Not Sustain Combustion, or others, as allowed under 49CFR Hazmat Regulations. Please consult 49CFR Subchapter C to ensure that subsequent shipments comply with these exceptions.

Reportable Quantity Description:

International Air Transport Association (IATA):

UN/ID No:	UN1263
Proper shipping name:	Paint
Hazard Class:	3
Packing Group:	III

International Maritime Organization (IMO):

UN/ID No:	UN1263
Proper shipping name:	PAINT
Hazard Class:	3
Packing Group:	III
Marine Pollutant	YES
Marine Pollutant Ingredient 1	AROMATIC NAPHTHA, LIGHT
Marine Pollutant Ingredient 2	1,2,4-TRIMETHYLBENZENE

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

Ingredient Name CAS-No.	Approx. Weight %	SARA 302	SARA 313	CERCLA RQ in lbs.
1,2,4-TRIMETHYLBENZENE 95-63-6	10 - 15		Listed.	
ISOPHORONE 78-59-1	5 - 10			5000
ALUMINUM 7429-90-5	1 - 5		Form R reporting required for 1.0 % de minimis concentration	
METHYL ISOBUTYL KETONE 108-10-1	1 - 5		form R reporting required for 1.0% de minimis concentration	5000
XYLENE 1330-20-7	1 - 5		form R reporting required for 1.0% de minimis concentration	100
N-BUTYL ALCOHOL 71-36-3	1 - 5		form R reporting required for 1.0% de minimis concentration	5000
CUMENE 98-82-8	1 - 1		form R reporting required for 1.0% de minimis concentration	5000
ETHYLBENZENE 100-41-4	1 - 1		form R reporting required for 1.0% de minimis concentration	1000
FORMALDEHYDE 50-00-0	0 - .099	EPCRA RQ = 100 lb	form R reporting required for 0.1% de minimis concentration	100

SARA 311/312 Hazard Class:

Acute: yes
Chronic: yes
Flammability: yes
Reactivity: no
Sudden Pressure: no

U.S. STATE REGULATIONS:

Right to Know:

The specific chemical identity of a component may be withheld as a trade secret under 34 Pennsylvania Code, Chapter 317.

Pennsylvania Right To Know:

XYLENE	1330-20-7
AROMATIC NAPHTHA, LIGHT	64742-95-6
1,2,4-TRIMETHYLBENZENE	95-63-6
ALUMINUM	7429-90-5
STODDARD SOLVENT	8052-41-3
FORMALDEHYDE	50-00-0
N-BUTYL ALCOHOL	71-36-3
ISOPHORONE	78-59-1
DIACETONE ALCOHOL	123-42-2
METHYL ISOBUTYL KETONE	108-10-1
PROPRIETARY RESIN	Trade Secret

Additional Non-Hazardous Materials

PROPRIETARY ADDITIVE	Trade Secret
PROPRIETARY RESIN	Trade Secret
PROPRIETARY RESIN	Trade Secret
PROPRIETARY RESIN	Trade Secret

California Proposition 65:

WARNING: This product contains chemicals known to the State of California to cause cancer.

Rule 66 status of product

Photochemically reactive.

INTERNATIONAL REGULATIONS - Chemical Inventories

US TSCA Inventory:

All components of this product are in compliance with U.S. TSCA Chemical Substance Inventory Requirements.

Canada Domestic Substances List:

All components of this product are listed on the Domestic Substances List.

16. OTHER INFORMATION

HMIS Codes

Health:	2*
Flammability:	2
Reactivity:	1
PPE:	X - See Section 8 for Personal Protective Equipment (PPE).

Abbreviations:

OSHA - Occupational Safety and Health Administration, IARC - International Agency for Research on Cancer, NIOSH - National Institute of Occupational Safety and Health, NTP - National Toxicology Program, ACGIH - American Conference of Governmental Industrial Hygienists, SCAQMD - South Coast Air Quality Management District, TSCA - Toxic Substances Control Act, IATA - International Air Transport Association, IMO - International Maritime Organization, DOT - Department of Transportation, NA - Not applicable, NOT ESTAB - Not established, N.A.V. - Not available, RQ - Reportable quantity, WT - Weight, MG/CU M - Milligrams per cubic meter, G/L - Grams per liter, MM - Millimeters, MPPCF - Millions of particles per cubic foot, PPM - parts per million, PPT - parts per thousand, TCC/PM - Tag closed cup / Pensky-Martens, PB - Lead, PEL - Permissible exposure level, TWA - Time Weighted Average, STEL - Short term exposure limit, C - Celsius, F - Fahrenheit.

Disclaimer:

The data on this sheet represent typical values. Since application variables are a major factor in product performance, this information should serve only as a general guide. Valspar assumes no obligation or liability for use of this information. UNLESS VALSPAR AGREES OTHERWISE IN WRITING, VALSPAR MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AND DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR FREEDOM FROM PATENT INFRINGEMENT. VALSPAR WILL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES. Your only remedy for any defect in this product is the replacement of the defective product, or a refund of its purchase price, at our option. This MSDS contains additional information required by the state of Pennsylvania.

Preparation Information:

Prepared By:	Regulatory Affairs Department
Print date:	28/Mar/2013
Revision Date:	28/Mar/2013



SAFETY DATA SHEET

Revision date 03-Jun-2016

Version 1

Supersedes Date: No information available

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Code 20S67WE.1265

Product Name MODIFIED POLYESTER

Other means of identification

No information available

Recommended use of the chemical and restrictions on use

Paint, Coatings

Details of the supplier of the safety data sheet

See section 16 for more
information

The Valspar Corporation
PO Box 1461
Minneapolis, MN 55440

E-mail address msds@valspar.com

Emergency telephone number

United States of America 1-888-345-5732

American Samoa, Guam, Northern Mariana Islands, Puerto Rico, U.S. Virgin Islands 1-800-255-3924

Section 2: HAZARDS IDENTIFICATION

Classification

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Carcinogenicity	Category 1B
Specific target organ toxicity (single exposure)	Category 3
Aspiration toxicity	Category 1
Flammable liquids	Category 3

Label elements

Product Code 20S67WE.1265

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AGHS - USA OSHA SDS



Signal word

DANGER

HAZARD STATEMENTS

Flammable liquid and vapor
Causes skin irritation
Causes serious eye damage
May cause an allergic skin reaction
May cause cancer
May be fatal if swallowed and enters airways
May cause drowsiness or dizziness
May cause respiratory irritation

PREVENTION

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Wash face, hands and any exposed skin thoroughly after handling. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace. Use only outdoors or in a well-ventilated area. P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ ventilating/ lighting/ equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

RESPONSE

IF exposed or concerned: Get medical advice/attention.

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Skin

If skin irritation or rash occurs: Get medical advice/attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. Wash contaminated clothing before reuse.

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Ingestion

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.

Fire

In case of fire: Use CO₂, dry chemical, or foam for extinction.

STORAGE

Store locked up. Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool.

DISPOSAL

Dispose of contents/containers in accordance with local regulations.

HAZARDS NOT OTHERWISE CLASSIFIED (HNOC)

Not applicable.

OTHER HAZARDS

Not applicable.

UNKNOWN ACUTE TOXICITY

0% of the mixture consists of ingredient(s) of unknown toxicity.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	weight-%
Solvent naphtha, petroleum, heavy aromatic	64742-94-5	10 - 25
Solvent naphtha, petroleum, light aromatic	64742-95-6	10 - 25

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Benzene, 1,2,4-trimethyl-	95-63-6	5 - 10
Diethylene glycol monobutyl ether	112-34-5	5 - 10
1-Butanol	71-36-3	3 - 5
Diacetone alcohol	123-42-2	1 - 3
Naphthalene	91-20-3	1 - 3
Xylenes	1330-20-7	1 - 3
Naphtha, petroleum, hydrotreated heavy	64742-48-9	1 - 3
Cumene	98-82-8	0.1 - 0.3
Ethylbenzene	100-41-4	0.1 - 0.3
Hexanoic acid, 2-ethyl-, tin(2+) salt (2:1)	301-10-0	0.1 - 0.3

*The exact percentage (concentration) of composition has been withheld as a trade secret.

Section 4: FIRST AID MEASURES

First Aid Measures

General advice

IF exposed or concerned: Get medical advice/attention.

Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Skin Contact

If skin irritation or rash occurs: Get medical advice/attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. Wash contaminated clothing before reuse.

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Ingestion

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

Suitable extinguishing media

Dry chemical, CO₂, water spray or alcohol-resistant foam.

Not to be used for safety reasons: Strong water jet

Specific hazards arising from the chemical

Burning produces heavy smoke. Fire may produce irritating and/or toxic gases. In the event of fire and/or explosion do not breathe fumes. May cause sensitization by skin contact.

Special protective equipment for fire-fighters

Wear self-contained breathing apparatus and protective suit. Cool containers with flooding quantities of water until well after fire is out. Do not allow run-off from fire-fighting to enter drains or water courses.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions

Avoid breathing vapors or mists. Remove all sources of ignition. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. Take precautionary measures against static discharges.

For emergency responders

Use personal protection recommended in Section 8.

Environmental precautions

Do not allow into any sewer, on the ground or into any body of water. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations. Prevent further leakage or spillage if safe to do so. Local authorities should be advised if significant spillages cannot be contained.

Methods and material for containment and cleaning up**Methods for containment**

Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Dispose of waste product or used containers according to local regulations. Clean with detergents. Avoid solvent cleaners. Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly. Take up mechanically, placing in appropriate containers for disposal.

Section 7: HANDLING AND STORAGE**Precautions for safe handling****Advice on safe handling**

Prevent the creation of flammable or explosive concentrations of vapor in air and avoid vapor concentration higher than the occupational exposure limits. Operators should wear anti-static footwear and clothing and floors should be of the conducting type. Use personal protection recommended in Section 8. Never use pressure to empty container. Comply with the health and safety at work laws. Prevent product from entering drains. Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Use only with adequate ventilation. Do not breathe dust/fume/gas/mist/vapors/spray. Use only in well-ventilated areas. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. All equipment used when handling the product must be grounded.

General Hygiene Considerations

When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Avoid contact with skin, eyes or clothing.

Conditions for safe storage, including any incompatibilities**Storage Conditions**

Keep/store only in original container. Store in accordance with local regulations. Keep unauthorized personnel away. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Keep container tightly closed in a dry and well-ventilated place. Keep tightly closed in a dry and cool place.

Incompatible materials

Strong oxidizing agents. Acids. Aluminum. Copper.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters****Exposure Limits**

If S* appears in the OEL table, it indicates this chemical contains a skin notation.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Benzene, 1,2,4-trimethyl- 95-63-6	TWA: 25 ppm		TWA: 25 ppm TWA: 125 mg/m ³
Diethylene glycol monobutyl ether 112-34-5	TWA: 10 ppm inhalable fraction and vapor		

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1-Butanol 71-36-3	TWA: 20 ppm	TWA: 100 ppm TWA: 300 mg/m ³	IDLH: 1400 ppm Ceiling: 50 ppm Ceiling: 150 mg/m ³
Diacetone alcohol 123-42-2	TWA: 50 ppm	TWA: 50 ppm TWA: 240 mg/m ³	IDLH: 1800 ppm TWA: 50 ppm TWA: 240 mg/m ³
Naphthalene 91-20-3	TWA: 10 ppm S*	TWA: 10 ppm TWA: 50 mg/m ³	IDLH: 250 ppm TWA: 10 ppm TWA: 50 mg/m ³ STEL: 15 ppm STEL: 75 mg/m ³
Xylenes 1330-20-7	STEL: 150 ppm TWA: 100 ppm	TWA: 100 ppm TWA: 435 mg/m ³	
Cumene 98-82-8	TWA: 50 ppm	TWA: 50 ppm TWA: 245 mg/m ³ S*	IDLH: 900 ppm TWA: 50 ppm TWA: 245 mg/m ³
Ethylbenzene 100-41-4	TWA: 20 ppm	TWA: 100 ppm TWA: 435 mg/m ³	IDLH: 800 ppm TWA: 100 ppm TWA: 435 mg/m ³ STEL: 125 ppm STEL: 545 mg/m ³
Hexanoic acid, 2-ethyl-, tin(2+) salt (2:1) 301-10-0	STEL: 0.2 mg/m ³ Sn TWA: 0.1 mg/m ³ Sn S*	TWA: 0.1 mg/m ³ Sn	IDLH: 25 mg/m ³ Sn TWA: 0.1 mg/m ³ except Cyhexatin Sn

Appropriate engineering controls

Engineering Controls

Ensure adequate ventilation, especially in confined areas. Provide local exhaust ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

Individual protection measures, such as personal protective equipment

Eye/face protection

Tight sealing safety goggles.

Skin and body protection

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Wear suitable protective clothing. Personnel should wear anti-static clothing made of natural fiber or of high temperature resistant synthetic fiber.

Hand Protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed. Gloves should be replaced regularly and if there is any sign of damage to the glove material. Always ensure that gloves are free from defects and that they are stored and used correctly. The performance or effectiveness of the glove may be reduced by physical / chemical damage and poor maintenance. Wear protective gloves.

Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Thermal Protection

No information available

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid
Appearance	No information available
Odor	No information available
Color	Aluminum
Odor Threshold	No information available
pH value	No information available
Melting point/freezing point	No information available
Boiling point / boiling range	No information available °C / °F

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flash point	46 °C / 115 °F
evaporation rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor Pressure	No information available
vapor density	No information available
Density (lbs per US gallon)	8.3
specific gravity	1
Solubility(ies)	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	No information available
Dynamic viscosity	No information available

Other information

Section 10: STABILITY AND REACTIVITY

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of Hazardous Reactions	None under normal processing.
Hazardous polymerization	None under normal processing.
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	Strong oxidizing agents. Acids. Aluminum. Copper.
Hazardous Decomposition Products	Carbon monoxide. Carbon dioxide (CO2).

Section 11: TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye contact
Causes serious eye damage

Skin Contact
Causes skin irritation
May cause an allergic skin reaction

Ingestion
May be fatal if swallowed and enters airways

Inhalation
May cause drowsiness or dizziness
May cause respiratory irritation

Numerical measures of toxicity - Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Solvent naphtha, petroleum, heavy aromatic 64742-94-5	> 5000 mg/kg (Rat)	> 2 mL/kg (Rabbit)	> 590 mg/m ³ (Rat) 4 h
Solvent naphtha, petroleum, light aromatic 64742-95-6	= 8400 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	= 3400 ppm (Rat) 4 h
Benzene, 1,2,4-trimethyl- 95-63-6	= 3280 mg/kg (Rat)	> 3160 mg/kg (Rabbit)	= 18 g/m ³ (Rat) 4 h
Diethylene glycol monobutyl ether 112-34-5	= 5660 mg/kg (Rat)	= 2700 mg/kg (Rabbit)	-

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1-Butanol 71-36-3	= 700 mg/kg (Rat) = 790 mg/kg (Rat)	= 3402 mg/kg (Rabbit) = 3400 mg/kg (Rabbit)	> 8000 ppm (Rat) 4 h
Diacetone alcohol 123-42-2	= 4 g/kg (Rat)	= 13500 mg/kg (Rabbit)	-
Naphthalene 91-20-3	= 1110 mg/kg (Rat) = 490 mg/kg (Rat)	= 1120 mg/kg (Rabbit) > 20 g/kg (Rabbit)	> 340 mg/m ³ (Rat) 1 h
Xylenes 1330-20-7	= 3500 mg/kg (Rat)	> 1700 mg/kg (Rabbit) > 4350 mg/kg (Rabbit)	= 29.08 mg/L (Rat) 4 h = 5000 ppm (Rat) 4 h
Naphtha, petroleum, hydrotreated heavy 64742-48-9	> 5000 mg/kg (Rat)	> 3160 mg/kg (Rabbit)	-
Cumene 98-82-8	= 1400 mg/kg (Rat)	= 12300 µL/kg (Rabbit)	> 3577 ppm (Rat) 6 h = 39000 mg/m ³ (Rat) 4 h
Ethylbenzene 100-41-4	= 3500 mg/kg (Rat)	= 15400 mg/kg (Rabbit)	= 17.2 mg/L (Rat) 4 h
Hexanoic acid, 2-ethyl-, tin(2+) salt (2:1) 301-10-0	-	-	-

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)	12888 Mg/kg
ATEmix (dermal)	93998 Mg/kg
ATEmix (inhalation-dust/mist)	20.8 mg/l
ATEmix (inhalation-vapor)	153 mg/l

UNKNOWN ACUTE TOXICITY 0% of the mixture consists of ingredient(s) of unknown toxicity.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chemical Name	ACGIH	IARC	NTP	OSHA
Naphthalene 91-20-3	A3	Group 2B	Reasonably Anticipated	X
Cumene 98-82-8		Group 2B	Reasonably Anticipated	X
Ethylbenzene 100-41-4	A3	Group 2B		X

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen.

IARC (International Agency for Research on Cancer)

Group 2B - Possibly Carcinogenic to Humans.

NTP (National Toxicology Program)

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen.

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present.

Skin corrosion/irritation	Causes skin irritation
Serious eye damage/eye irritation	Causes serious eye damage
Skin sensitization	May cause an allergic skin reaction
Respiratory sensitization	Not applicable
Germ cell mutagenicity	Not applicable
Carcinogenicity	May cause cancer
Reproductive Toxicity	Not applicable
Specific target organ toxicity (single exposure)	May cause drowsiness or dizziness May cause respiratory irritation
Specific target organ toxicity (repeated exposure)	Not applicable
Aspiration hazard	Not applicable

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

Environmental precautions Prevent product from entering drains.

Marine pollutant This product contains a chemical which is listed as a severe marine pollutant according to DOT

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Marine pollutant

This material meets the definition of a marine pollutant

Persistence and degradability

No information available

Bioaccumulation

No information available

Mobility

No information available

Other adverse effects

No information available

Section 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Improper disposal or reuse of this container may be dangerous and illegal. Empty containers must be scrapped or reconditioned.

Section 14: TRANSPORT INFORMATION

14.1 UN/ID no	DOT UN1263	IMDG UN1263	IATA UN1263
14.2 Proper shipping name	Paint	Paint	Paint
14.3 Hazard Class	COMBUSTIBLE LIQUID	3	3
14.4 Packing Group	III	III	III
14.5 Environmental hazard Yes			
Marine pollutant	This product contains a chemical which is listed as a severe marine pollutant according to DOT		
Marine pollutant	This material meets the definition of a marine pollutant		
Marine pollutant	Solvent naphtha, petroleum, heavy aromatic , Solvent naphtha, petroleum, light aromatic		
14.6 Special Provisions	B1, B52, IB3, T2, TP1, TP29, 367	163, 223, 367 955	A3, A72, A192
	Emergency Response Guide	EmS-No	
	Number	F-E, S-E	
	128		
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available		

The supplier may apply one of the following exceptions: Combustible Liquid (49 CFR 173.150(f)); Consumer Commodity (49 CFR 173.150(c), ICAO/IATA SP A112); Limited Quantity (49 CFR 173.150(b), ICAO Part 3 Chapter 4, IATA 2.7, IMDG Chapter 3.4); Viscous Liquid (49 CFR 173.121(b), IMDG 2.3.2.2, IATA 3.3.3.1.1, ICAO 3.2.2, ADR 2.2.3.1.5); Does Not Sustain Combustion (49 CFR 173.120(a), IATA 3.3.1.3, ICAO 3.1.3, IMDG 2.3.1.3, ADR 2.2.3.1.1 Note 1); or others as allowed under hazardous materials/dangerous goods regulations.

Section 15: REGULATORY INFORMATION

International Inventories

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

All components are listed or exempt from listing.

DSL - Canadian Domestic Substances List

All components are listed or exempt from listing

US Federal Regulations

Chemical Name	SARA 313 - Threshold Values %	Hazardous air pollutants (HAPs) content
Benzene, 1,2,4-trimethyl- 95-63-6 5 - 10	1	
Diethylene glycol monobutyl ether 112-34-5 5 - 10	1	Present

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1-Butanol 71-36-3 3 - 5	1	
Aluminum 7429-90-5 3 - 5	1	
Naphthalene 91-20-3 1 - 3	0.1	Present
Xylenes 1330-20-7 1 - 3	1	Present
Cumene 98-82-8 0.1 - 0.3	1	Present
Ethylbenzene 100-41-4 0.1 - 0.3	0.1	Present

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	Yes

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Naphthalene 91-20-3	100 lb	X	X	X
Xylenes 1330-20-7	100 lb			X
Ethylbenzene 100-41-4	1000 lb	X	X	X

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
1-Butanol 71-36-3	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
Naphthalene 91-20-3	100 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ
Xylenes 1330-20-7	100 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ
Cumene 98-82-8	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
Ethylbenzene 100-41-4	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ

US State Regulations

Rule 66 status of product

Photochemically reactive.

California Proposition 65

WARNING! This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

U.S. EPA Label information

EPA Pesticide registration number Not applicable

U.S. State Right-to-Know Regulations

Chemical Name
Proprietary Non-Hazardous Ingredient - Proprietary CAS

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Proprietary Non-Hazardous Ingredient - Proprietary CAS
Solvent naphtha, petroleum, heavy aromatic 64742-94-5
Solvent naphtha, petroleum, light aromatic 64742-95-6
Benzene, 1,2,4-trimethyl- 95-63-6
Diethylene glycol monobutyl ether 112-34-5
1-Butanol 71-36-3
Aluminum 7429-90-5
Diacetone alcohol 123-42-2
Naphthalene 91-20-3
Xylenes 1330-20-7
Naphtha, petroleum, hydrotreated heavy 64742-48-9
Cumene 98-82-8
Ethylbenzene 100-41-4

Section 16: OTHER INFORMATION

HMIS

Health hazards 3*

* = Chronic Health Hazard

Flammability 2

Physical hazards 1

Personal Protection X

Supplier Address

The Valspar Corporation
2000 Georgetown Drive
Waterfront Office Park,
Building III
Sewickley, PA 15143
724-940-3800

The Valspar Corporation
2001 Tracy St.
Pittsburgh, PA, 15233
412-766-9300

The Valspar Corporation
372 Cleveland St.
Rochester, PA 15074
724-774-8550

Valspar Coatings
90 Carson Rd.
Birmingham, AL 35215
205-854-5454

Valspar Coatings
701 Shiloh Rd.
Garland, TX 75042
972-276-5181

Prepared By Product Stewardship

Revision date 03-Jun-2016

Revision Note No information available

Disclaimer

The information on this Safety Data Sheet (SDS) is based on the present state of our knowledge, current national legislation and guidelines. As the specific conditions of use of the product are outside the supplier's knowledge and control the user is responsible for ensuring that the requirements of relevant legislation are complied with. This SDS should not be construed as any guarantee of the technical performance or suitability for particular applications. UNLESS SUPPLIER AGREES OTHERWISE IN WRITING, SUPPLIER MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AND DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR FREEDOM FROM PATENT INFRINGEMENT. SUPPLIER WILL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

End of Safety Data Sheet

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

COATING SUPPLIER
ENVIRONMENTAL DATA SHEET

Coating Manufacturer:	<u>Valspar</u>
Coating Code Number:	<u>20S67WE</u>

1.	Coating Density Standard Wt/Gal Cup	<u>8.35</u> lb/gal	<u>1.00</u> kg/l
2.	Solvent System (Volatiles) Calculated Density:	<u>7.52</u> lb/gal	<u>0.90</u> kg/l
3.	Organic Solvent Density:	<u>7.52</u> lb/gal	<u>0.90</u> kg/l
4.	Coating Solids (Non Volatiles): ASTM 2369 (EPA Method 24)	a. <u>34.0</u> b. <u>26.7</u>	Weight Percent Volume Percent
5.	Total Volatiles (H2O Included): ASTM 2369 (EPA Method 24)	a. <u>66.0</u> b. <u>73.3</u>	Weight Percent Volume Percent
6.	Total Exempt Solvent:	a. <u>0.0</u> b. <u>0.0</u>	Weight Percent Volume Percent
7.	Total Organic Volatiles: (Less H2O)	a. <u>66.0</u> b. <u>73.3</u>	Weight Percent Volume Percent
8.	Coating Water Content:		
	a. Water content as Charged:	a. <u>0.0</u>	Weight Percent
	b. Calculated:	b. <u>0.0</u>	Volume Percent
9.	VOC Content: *		
	(Coating Less Water & Exempt Solvent)	<u>5.5</u> lb/gal	<u>0.66</u> kg/l
	(Solids)	<u>20.6</u> lb/gal	<u>2.48</u> kg/l

*Note : The VOC reported is for the coating as supplied, and is an average for batches produced. Diluting the coating with organic solvents at the point of application will alter the VOC level. Consult your Valspar Sales Representative for additional information in such cases.

9/21/2016

4.4.PKG.F7.REV.2

Appendix E
Red Line Version of Title V Permit

*West Virginia Department of Environmental Protection
Division of Air Quality*

*Earl Ray Tomblin
Governor*

*Randy C. Huffman
Cabinet Secretary*

Permit to

Operate



*Pursuant to
Title V
of the Clean Air Act*

Issued to:
Ardagh Metal Packaging USA Inc.
Weirton Plant, Weirton, WV
R30-00900012-2012

*John A. Benedict
Director*

*Issued: April 3, 2012 • Effective: April 17, 2012
Expiration: April 3, 2017 • Renewal Application Due: October 3, 2016*

Permit Number: **R30-00900012-2012**
Permittee: **Ardagh Metal Packaging USA Inc.**
Permittee Mailing Address: **3030 Birch Drive, Weirton, WV 26062**

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45CSR30 C Requirements for Operating Permits. The permittee identified at the above-referenced facility is authorized to operate the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Facility Location:	Weirton, Brooke County, West Virginia
Mailing Address:	3030 Birch Drive, Weirton, WV 26062
Telephone Number:	(304) 797-0518
Type of Business Entity:	Corporation
Facility Description:	The Weirton Plant has four (4) coating lines with three thermal oxidation systems with heat recovery. The operating lines (Line Nos. 1 through 4) include the coating operation, drying operation, and the emission control. The equipment is fed uncoated sheets of metal, applies the coating, dries the coating, and restacks the sheets. The only difference with the lines is that Line No. 4 operates in line with the existing Litho Coating Line. The Litho Coating Line is a printer, which prints on the sheet metal prior to the coating being applied in the coating portion of the operation. The facility receives rolls of sheet metal, cuts the sheets, prints and coats the sheets, dries the coatings and then restacks the sheets. The coated sheets are the final product. The site also makes can ends from the sheet metal.
SIC Codes:	3411 Primary; NA Secondary; NA Tertiary
UTM Coordinates:	531.834 km Easting \$ 4470.8233 km Northing \$ Zone 17

Permit Writer: Wayne Green

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.

Issuance of this Title V Operating Permit does not supersede or invalidate any existing permits under 45CSR13, 14 or 19, although all applicable requirements from such permits governing the facility's operation and compliance have been incorporated into the Title V Operating Permit.

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1.0 Emission Units and Active R13, R14, and R19 Permits

1.1 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
1S	4E, 5E, 6E, 7E	Wagner Coater Oven Line #1	1979	7,300 sheets/hr	1C
2S	4E, 5E, 6E, 7E	FECO Coater Oven Line #2	1988	7,300 sheets/hr	1C
17S	23E, 24E	Wagner Coater Oven Line #3	1997	7,500 sheets/hr	2C
18S	28E, 29E	LTG Coater Oven Line #4	2001	7,500 sheets/hr	3C
15S	8E	Bulk Storage Tank #1	1998	10,000 gallons	NA
16S	9E	Bulk Storage Tank #2	1998	10,000 gallons	NA
30S	30E	Bulk Storage Tank #3	2004	1,500 gallons	NA
31S	31E	Litho Line	1980	5,100 sheets/hr	NA
32S	32E	Cleaning	NA	NA	NA

Control Device ID	Control Device Description	Year Installed	Design Capacity
1C	Thermal Oxidizer No. 1 (Incinerator)	1979	15 MMBtu/hr
2C	Thermal Oxidizer No. 2 (LTG Technologies Maxon Incinerator #8m)	1997	6.0 MMBtu/hr
3C	Thermal Oxidizer No. 3	2001	6.0 MMBtu/hr

1.2 Active R13, R14, and R19 Permits

The underlying authority for any conditions from R13, R14, and/or R19 permits contained in this operating permit is cited using the original permit number (e.g. R13-1234). The current applicable version of such permit(s) is listed below.

Permit Number	Date of Issuance
R13-2410D	July 27, 2015

2.0 General Conditions

2.1. Definitions

- 2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.
- 2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.
- 2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.
- 2.1.4. Unless otherwise specified in a permit condition or underlying rule or regulation, all references to a "rolling yearly total" shall mean the sum of the monthly data, values or parameters being measured, monitored, or recorded, at any given time for the previous twelve (12) consecutive calendar months.

2.2. Acronyms

CAAA	Clean Air Act Amendments	NSPS	New Source Performance
CBI	Confidential Business Information		Standards
CEM	Continuous Emission Monitor	PM	Particulate Matter
CES	Certified Emission Statement	PM₁₀	Particulate Matter less than 10µm in diameter
C.F.R. or CFR	Code of Federal Regulations		
CO	Carbon Monoxide	pph	Pounds per Hour
C.S.R. or CSR	Codes of State Rules	ppm	Parts per Million
DAQ	Division of Air Quality	PSD	Prevention of Significant Deterioration
DEP	Department of Environmental Protection	psi	Pounds per Square Inch
FOIA	Freedom of Information Act	SIC	Standard Industrial Classification
HAP	Hazardous Air Pollutant		
HON	Hazardous Organic NESHAP	SIP	State Implementation Plan
HP	Horsepower	SO₂	Sulfur Dioxide
lbs/hr or lb/hr	Pounds per Hour	TAP	Toxic Air Pollutant
LDAR	Leak Detection and Repair	TPY	Tons per Year
m	Thousand	TRS	Total Reduced Sulfur
MACT	Maximum Achievable Control Technology	TSP	Total Suspended Particulate
mm	Million	USEPA	United States Environmental Protection Agency
mmBtu/hr	Million British Thermal Units per Hour	UTM	Universal Transverse Mercator
mmft³/hr or mmcf/hr	Million Cubic Feet Burned per Hour	VEE	Visual Emissions Evaluation
NA or N/A	Not Applicable		
NAAQS	National Ambient Air Quality Standards	VOC	Volatile Organic Compounds
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		
NO_x	Nitrogen Oxides		

2.3. Permit Expiration and Renewal

- 2.3.1. Permit duration. This permit is issued for a fixed term of five (5) years and shall expire on the date specified on the cover of this permit, except as provided in 45CSR§30-6.3.b. and 45CSR§30-6.3.c.
[45CSR§30-5.1.b.]
- 2.3.2. A permit renewal application is timely if it is submitted at least six (6) months prior to the date of permit expiration.
[45CSR§30-4.1.a.3.]
- 2.3.3. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with 45CSR§30-6.2. and 45CSR§30-4.1.a.3.
[45CSR§30-6.3.b.]
- 2.3.4. If the Secretary fails to take final action to deny or approve a timely and complete permit application before the end of the term of the previous permit, the permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time.
[45CSR§30-6.3.c.]

2.4. Permit Actions

- 2.4.1. This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
[45CSR§30-5.1.f.3.]

2.5. Reopening for Cause

- 2.5.1. This permit shall be reopened and revised under any of the following circumstances:
 - a. Additional applicable requirements under the Clean Air Act or the Secretary's legislative rules become applicable to a major source with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 45CSR§§30-6.6.a.1.A. or B.
 - b. Additional requirements (including excess emissions requirements) become applicable to an affected source under Title IV of the Clean Air Act (Acid Deposition Control) or other legislative rules of the Secretary. Upon approval by U.S. EPA, excess emissions offset plans shall be incorporated into the permit.
 - c. The Secretary or U.S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

- d. The Secretary or U.S. EPA determines that the permit must be revised or revoked and reissued to assure compliance with the applicable requirements.

[45CSR§30-6.6.a.]

2.6. Administrative Permit Amendments

- 2.6.1. The permittee may request an administrative permit amendment as defined in and according to the procedures specified in 45CSR§30-6.4.

[45CSR§30-6.4.]

2.7. Minor Permit Modifications

- 2.7.1. The permittee may request a minor permit modification as defined in and according to the procedures specified in 45CSR§30-6.5.a.

[45CSR§30-6.5.a.]

2.8. Significant Permit Modification

- 2.8.1. The permittee may request a significant permit modification, in accordance with 45CSR§30-6.5.b., for permit modifications that do not qualify for minor permit modifications or as administrative amendments.

[45CSR§30-6.5.b.]

2.9. Emissions Trading

- 2.9.1. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit and that are in accordance with all applicable requirements.

[45CSR§30-5.1.h.]

2.10. Off-Permit Changes

- 2.10.1. Except as provided below, a facility may make any change in its operations or emissions that is not addressed nor prohibited in its permit and which is not considered to be construction nor modification under any rule promulgated by the Secretary without obtaining an amendment or modification of its permit. Such changes shall be subject to the following requirements and restrictions:

- a. The change must meet all applicable requirements and may not violate any existing permit term or condition.
- b. The permittee must provide a written notice of the change to the Secretary and to U.S. EPA within two (2) business days following the date of the change. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.
- c. The change shall not qualify for the permit shield.

- d. The permittee shall keep records describing all changes made at the source that result in emissions of regulated air pollutants, but not otherwise regulated under the permit, and the emissions resulting from those changes.
- e. No permittee may make any change subject to any requirement under Title IV of the Clean Air Act (Acid Deposition Control) pursuant to the provisions of 45CSR§30-5.9.
- f. No permittee may make any changes which would require preconstruction review under any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) pursuant to the provisions of 45CSR§30-5.9.

[45CSR ' 30-5.9.]

2.11. Operational Flexibility

- 2.11.1. The permittee may make changes within the facility as provided by § 502(b)(10) of the Clean Air Act. Such operational flexibility shall be provided in the permit in conformance with the permit application and applicable requirements. No such changes shall be a modification under any rule or any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) promulgated by the Secretary in accordance with Title I of the Clean Air Act and the change shall not result in a level of emissions exceeding the emissions allowable under the permit.

[45CSR§30-5.8]

- 2.11.2. Before making a change under 45CSR§30-5.8., the permittee shall provide advance written notice to the Secretary and to U.S. EPA, describing the change to be made, the date on which the change will occur, any changes in emissions, and any permit terms and conditions that are affected. The permittee shall thereafter maintain a copy of the notice with the permit, and the Secretary shall place a copy with the permit in the public file. The written notice shall be provided to the Secretary and U.S. EPA at least seven (7) days prior to the date that the change is to be made, except that this period may be shortened or eliminated as necessary for a change that must be implemented more quickly to address unanticipated conditions posing a significant health, safety, or environmental hazard. If less than seven (7) days notice is provided because of a need to respond more quickly to such unanticipated conditions, the permittee shall provide notice to the Secretary and U.S. EPA as soon as possible after learning of the need to make the change.

[45CSR§30-5.8.a.]

- 2.11.3. The permit shield shall not apply to changes made under 45CSR§30-5.8., except those provided for in 45CSR§30-5.8.d. However, the protection of the permit shield will continue to apply to operations and emissions that are not affected by the change, provided that the permittee complies with the terms and conditions of the permit applicable to such operations and emissions. The permit shield may be reinstated for emissions and operations affected by the change:

- a. If subsequent changes cause the facility's operations and emissions to revert to those authorized in the permit and the permittee resumes compliance with the terms and conditions of the permit, or
- b. If the permittee obtains final approval of a significant modification to the permit to incorporate the change in the permit.

[45CSR§30-5.8.c.]

- 2.11.4. "Section 502(b)(10) changes" are changes that contravene an express permit term. Such changes do not include changes that would violate applicable requirements or contravene enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.

[45CSR§30-2.39]

2.12. Reasonably Anticipated Operating Scenarios

- 2.12.1. The following are terms and conditions for reasonably anticipated operating scenarios identified in this permit.
- a. Contemporaneously with making a change from one operating scenario to another, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating and to document the change in reports submitted pursuant to the terms of this permit and 45CSR30.
 - b. The permit shield shall extend to all terms and conditions under each such operating scenario; and
 - c. The terms and conditions of each such alternative scenario shall meet all applicable requirements and the requirements of 45CSR30.

[45CSR§30-5.1.i.]

2.13. Duty to Comply

- 2.13.1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

[45CSR§30-5.1.f.1.]

2.14. Inspection and Entry

- 2.14.1. The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:
- a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;

- d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

[45CSR§30-5.3.b.]

2.15. Schedule of Compliance

- 2.15.1. For sources subject to a compliance schedule, certified progress reports shall be submitted consistent with the applicable schedule of compliance set forth in this permit and 45CSR§30-4.3.h., but at least every six (6) months, and no greater than once a month, and shall include the following:
 - a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and
 - b. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measure adopted.

[45CSR§30-5.3.d.]

2.16. Need to Halt or Reduce Activity not a Defense

- 2.16.1. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.
[45CSR§30-5.1.f.2.]

2.17. Emergency

- 2.17.1. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
[45CSR§30-5.7.a.]
- 2.17.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of 45CSR§30-5.7.c. are met.
[45CSR§30-5.7.b.]
- 2.17.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;

- b. The permitted facility was at the time being properly operated;
- c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
- d. Subject to the requirements of 45CSR§30-5.1.c.3.C.1, the permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice, report, and variance request fulfills the requirement of 45CSR§30-5.1.c.3.B. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

[45CSR§30-5.7.c.]

- 2.17.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

[45CSR§30-5.7.d.]

- 2.17.5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

[45CSR§30-5.7.e.]

2.18. Federally-Enforceable Requirements

- 2.18.1. All terms and conditions in this permit, including any provisions designed to limit a source's potential to emit and excepting those provisions that are specifically designated in the permit as "State-enforceable only", are enforceable by the Secretary, USEPA, and citizens under the Clean Air Act.

[45CSR§30-5.2.a.]

- 2.18.2. Those provisions specifically designated in the permit as "State-enforceable only" shall become "Federally-enforceable" requirements upon SIP approval by the USEPA.

2.19. Duty to Provide Information

- 2.19.1. The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records required to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

[45CSR§30-5.1.f.5.]

2.20. Duty to Supplement and Correct Information

- 2.20.1. Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.

[45CSR§30-4.2.]

2.21. Permit Shield

- 2.21.1. Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance provided that such applicable requirements are included and are specifically identified in this permit or the Secretary has determined that other requirements specifically identified are not applicable to the source and this permit includes such a determination or a concise summary thereof.

[45CSR§30-5.6.a.]

- 2.21.2. Nothing in this permit shall alter or affect the following:

- a. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance; or
- b. The applicable requirements of the Code of West Virginia and Title IV of the Clean Air Act (Acid Deposition Control), consistent with § 408 (a) of the Clean Air Act.
- c. The authority of the Administrator of U.S. EPA to require information under § 114 of the Clean Air Act or to issue emergency orders under § 303 of the Clean Air Act.

[45CSR§30-5.6.c.]

2.22. Credible Evidence

- 2.22.1. Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee including but not limited to any challenge to the credible evidence rule in the context of any future proceeding.

[45CSR§30-5.3.e.3.B. and 45CSR38]

2.23. Severability

- 2.23.1. The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid by a court of competent jurisdiction, the remaining permit terms and conditions or their application to other circumstances shall remain in full force and effect.

[45CSR§30-5.1.e.]

2.24. Property Rights

- 2.24.1. This permit does not convey any property rights of any sort or any exclusive privilege.

[45CSR§30-5.1.f.4]

2.25. Acid Deposition Control

2.25.1. Emissions shall not exceed any allowances that the source lawfully holds under Title IV of the Clean Air Act (Acid Deposition Control) or rules of the Secretary promulgated thereunder.

- a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid deposition control program, provided that such increases do not require a permit revision under any other applicable requirement.
- b. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement.
- c. Any such allowance shall be accounted for according to the procedures established in rules promulgated under Title IV of the Clean Air Act.

[45CSR§30-5.1.d.]

2.25.2. Where applicable requirements of the Clean Air Act are more stringent than any applicable requirement of regulations promulgated under Title IV of the Clean Air Act (Acid Deposition Control), both provisions shall be incorporated into the permit and shall be enforceable by the Secretary and U. S. EPA.

[45CSR§30-5.1.a.2.]

3.0 Facility-Wide Requirements

3.1. Limitations and Standards

- 3.1.1. **Open burning.** The open burning of refuse by any person is prohibited except as noted in 45CSR§6-3.1.
[45CSR§6-3.1.]
- 3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause or allow any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.
[45CSR§6-3.2.]
- 3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.
[40 C.F.R. §61.145(b) and 45CSR34]
- 3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.
[45CSR§4-3.1 State-Enforceable only.]
- 3.1.5. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11.
[45CSR§11-5.2]
- 3.1.6. **Emission inventory.** The permittee is responsible for submitting, on an annual basis, an emission inventory in accordance with the submittal requirements of the Division of Air Quality.
[W.Va. Code § 22-5-4(a)(14)]
- 3.1.7. **Ozone-depleting substances.** For those facilities performing maintenance, service, repair or disposal of appliances, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 C.F.R. Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to 40 C.F.R. §§ 82.154 and 82.156.
 - b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 C.F.R. § 82.158.

- c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 C.F.R. § 82.161.

[40 C.F.R. 82, Subpart F]

- 3.1.8. **Risk Management Plan.** Should this stationary source, as defined in 40 C.F.R. § 68.3, become subject to Part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in 40 C.F.R. § 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 C.F.R. Part 70 or 71.

[40 C.F.R. 68]

- 3.1.9. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application R13-2410C and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to.

[45CSR13, R13-2410, 2.5.1.]

3.2. Monitoring Requirements

- 3.2.1. Reserved

3.3. Testing Requirements

- 3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:
 - a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63, if applicable, in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable.
 - b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit.
 - c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any

testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

- d. The permittee shall submit a report of the results of the stack test within 60 days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:
 1. The permit or rule evaluated, with the citation number and language.
 2. The result of the test for each permit or rule condition.
 3. A statement of compliance or non-compliance with each permit or rule condition.

[WV Code §§ 22-5-4(a)(14-15) and 45CSR13]

3.4. Recordkeeping Requirements

- 3.4.1. **Monitoring information.** The permittee shall keep records of monitoring information that include the following:
 - a. The date, place as defined in this permit and time of sampling or measurements;
 - b. The date(s) analyses were performed;
 - c. The company or entity that performed the analyses;
 - d. The analytical techniques or methods used;
 - e. The results of the analyses; and
 - f. The operating conditions existing at the time of sampling or measurement.

[45CSR§30-5.1.c.2.A., 45CSR13, R13-2410, 4.3.1.]

- 3.4.2. **Retention of records.** The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of monitoring sample, measurement, report, application, or record creation date. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Where appropriate, records may be maintained in computerized form in lieu of the above records.

[45CSR§30-5.1.c.2.B.]

- 3.4.3. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.

[45CSR§30-5.1.c. State-Enforceable only.]

3.5. Reporting Requirements

- 3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
[45CSR§§30-4.4. and 5.1.c.3.D.]
- 3.5.2. A permittee may request confidential treatment for the submission of reporting required under 45CSR§30-5.1.c.3. pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
[45CSR§30-5.1.c.3.E.]
- 3.5.3. Except for the electronic submittal of the annual certification to the USEPA as required in 3.5.5 below, all notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, mailed first class or by private carrier with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

If to the DAQ:

Director
WVDEP
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Phone: 304/926-0475
FAX: 304/926-0478

If to the US EPA:

Associate Director
Office of Air Enforcement and Compliance
Assistance (3AP20)
U. S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

- 3.5.4. **Certified emissions statement.** The permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality.
[45CSR§30-8.]
- 3.5.5. **Compliance certification.** The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The annual certification shall be submitted to the DAQ and USEPA on or before March 15 of each year, and shall certify compliance for the period ending December 31. The annual certification to the USEPA shall be submitted in electronic format only. It shall be submitted by e-mail to the following address: R3_APD_Permits@epa.gov. The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification.
[45CSR§30-5.3.e.]

- 3.5.6. **Semi-annual monitoring reports.** The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4.

[45CSR§30-5.1.c.3.A.]

- 3.5.7. **Emergencies.** For reporting emergency situations, refer to Section 2.17 of this permit.

- 3.5.8. **Deviations.**

- a. In addition to monitoring reports required by this permit, the permittee shall promptly submit supplemental reports and notices in accordance with the following:

1. Any deviation resulting from an emergency or upset condition, as defined in 45CSR§30-5.7., shall be reported by telephone or telefax within one (1) working day of the date on which the permittee becomes aware of the deviation, if the permittee desires to assert the affirmative defense in accordance with 45CSR§30-5.7. A written report of such deviation, which shall include the probable cause of such deviations, and any corrective actions or preventative measures taken, shall be submitted and certified by a responsible official within ten (10) days of the deviation.
2. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or telefax. A written report of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.
3. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.
4. All reports of deviations shall identify the probable cause of the deviation and any corrective actions or preventative measures taken.

[45CSR§30-5.1.c.3.C.]

- b. The permittee shall, in the reporting of deviations from permit requirements, including those attributable to upset conditions as defined in this permit, report the probable cause of such deviations and any corrective actions or preventive measures taken in accordance with any rules of the Secretary.

[45CSR§30-5.1.c.3.B.]

- 3.5.9. **New applicable requirements.** If any applicable requirement is promulgated during the term of this permit, the permittee will meet such requirements on a timely basis, or in accordance with a more detailed schedule if required by the applicable requirement.

[45CSR§30-4.3.h.1.B.]

3.6. Compliance Plan

- 3.6.1. None

3.7. Permit Shield

- 3.7.1. The permittee is hereby granted a permit shield in accordance with 45CSR§30-5.6. The permit shield applies provided the permittee operates in accordance with the information contained within this permit.
- 3.7.2. The following requirements specifically identified are not applicable to the source based on the determinations set forth below. The permit shield shall apply to the following requirements provided the conditions of the determinations are met.

40 C.F.R. Part 60 Subpart TT	Standards of Performance for Metal Coil Surface Coating defines metal coil surface coating operation as the application system used to apply an organic coating to the surface of any continuous metal strip with thickness of 0.15 millimeter or more that is packaged in a roll or coil. This facility cuts the metal coils prior to coating, and as such, is not subject to 40 C.F.R. Part 60 Subpart TT.
40 C.F.R. Part 63 Subpart KKKK	National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Cans. The Ardagh Metal Packaging USA Inc. Weirton Plant reduced their HAP emission limitations (per permit R13-2410B) by modifying their use of coatings, cleaners, pastes and thinners to become a synthetic minor source under 40 C.F.R. Part 63 Subpart KKKK.

4.0 Wagner Coater Oven Line #1 (1S), FECO Coater Oven Line #2 (2S), Wagner Coater Oven Line #3 (17S), LTG Coater Oven Line #4 (18S), Litho Line (31S), Bulk Storage Tank #1 (15S), Bulk Storage Tank #2 (16S), Bulk Storage Tank #3 (30S), Cleaning (32S) [emission point ID(s): (4E, 5E, 6E, 7E, 23E, 24E, 28E, 29E, 31E, 8E, 9E, 30E, 31E, and 32E)]

4.1. Limitations and Standards

- 4.1.1. The following maximum annual coating and solvent throughputs and volatile organic compound (VOC) emission rates for the following bulk storage tanks shall not be exceeded:

Bulk Storage Tank ID	Emission Point ID Number	Product in Storage	Maximum Annual Limits	
			Coating Throughput (gallons/year)	VOC Emissions (pounds/year)
#1 (15S)	8E	PPG4348807 Clear Enamel	200,000	342
#2 (16S)	9E	96X069A	200,000	342
#3 (30S)	30E	Glycol Ether (2-n-Butoxy-1-ethanol)	154,000	3.2

Note: The above table is a snapshot of coating storage at permit approval time. The permittee is allowed to change coating storage as long as the requirements given in sections 4.1.8, 4.1.9, and 4.1.10 of this permit are met.

[45CSR13, R13-2410, 4.1.1.]

- 4.1.2. The number of metal sheets coated via Wagner Coater Oven Line #1 (ID# 1S) shall not exceed 7,300/hr.
[45CSR13, R13-2410, 4.1.2.]
- 4.1.3. The number of metal sheets coated via FECO Coater Oven Line #2 (ID# 2S) shall not exceed 7,300/hr.
[45CSR13, R13-2410, 4.1.3.]
- 4.1.4. The number of metal sheets coated via Wagner Coater Oven Line #3 (Spot Coater C-3 Continuous Drying Oven Type DBL (150' x 6.5' x 10') (ID# 17S)) shall not exceed 7,500/hr.
[45CSR13, R13-2410, 4.1.4.]
- 4.1.5. The number of metal sheets coated via LTG Coater Oven Line #4 (ID# 18S) shall not exceed 7,500/hr.
[45CSR13, R13-2410, 4.1.5.]
- 4.1.6. The metal can sheet coating lines and associated control devices shall be installed, maintained, and operated so as to achieve the following minimum VOC capture efficiencies:

Can Coating Line	Minimum VOC Capture Efficiency	Minimum VOC Control Efficiency
1S (Line 1)	100%	95%
2S (Line 2)	100%	95%
17S (Line 3)	100%	98%
18S (Line 4)	100%	99%

[45CSR13, R13-2410, 4.1.6.]

- 4.1.7. The following coatings and solvents have been permitted for use on metal can sheet Wagner Coater Oven

Line #1, FECO Coater Oven Line #2, Wagner Coater Oven Line #3, LTG Coater Oven Line #4 (Coating Lines C1 - C4) (ID# 1S, 2S, 17S, & 18S), and at the maximum usage rates given below:

Description	Maximum Usage Rate	Maximum VOC Usage Rate
	(gallons/year)	(pounds/year)
Coatings		
9200-014	1,600	8,640
13S07WF	50,000	180,000
ICI 642E118	200,000	720,000
9851-019	185,000	943,500
9434039	7,500	64,425
9851-577	4,800	24,480
8406026	55	292
8744-902	110	583
20S78AA	2,000	17,200
20S82AA	600	3,720
20S67WA	50,000	421,500
6256054	10,000	53,000
PPG G23	300	1,530
657 HE 1293	7,500	59,925
657HE 13501	8,300	39,840
5698014	39,800	131,340
9009-920	38,900	202,280
9851-579	5,000	26,000
646C140	3,000	16,416
9851589	2,000	10,608
92X111H	10,000	88,000
96X069A	200,000	695,942
26S96EJ	300	3,540
2019-03	1,140	9,610
4001S13V	12,000	113,640
4348807	113,330	917,973
4348312	3,207	25,978
816610	2,500	22,000
816361	1,800	14,868
51-017	3,000	25,500
Pastes, Lubricants, and Thinners		
4623105	1,100	5,610
1949101	7,000	23,100
6661011	210	1,365
7789001	300	1,080
Hi Sol 10	110	803
Glycol Ether EB	46,000	346,395
Mineral Spirits 66/3	10,000	64,974

Description	Maximum Usage Rate	Maximum VOC Usage Rate
	(gallons/year)	(pounds/year)
Aromatic 100	208	1,508
Isophorone	52	355
Arcosolve PM Acetate	6,000	47,981
Belt Cleaners		
Eastman MPK	330	371
Cleanup Solvents		
Reformulated 4212-1	16,000	112,160
IPA Anhydrous	5,000	32,900
UV Wash 5700	2,000	11,400
General Wash	2,000	13,800
Total		5,506,132

Note: The above table is a snapshot of coating usage at permit approval time. The permittee is allowed to change coatings and coating usage rates as long as the requirements given in sections 4.1.8., 4.1.9, and 4.1.10 of this permit are met.

[45CSR13, R13-2410, 4.1.7.]

4.1.8. Use of any surface coating, paste, lubricant, thinner, solvent or cleaner containing any constituent identified in Section 112(b) of the 1990 Clean Air Act Amendments as a HAP and not listed below shall be in accordance with the following:

- a. The permittee shall notify the Director in writing of the surface coating to be used and the HAP(s) contained therein within thirty (30) days of the use of the surface coating. Additionally, an MSDS sheet for the surface coating shall be supplied at this time to the Director.
- b. The use of the surface coating shall be incorporated into the record keeping requirements contained herein.

HAP	CAS Number	HAP	CAS Number
Cumene	98828	Xylene	1330207
Ethyl Benzene	100414	Isophorone	78591
Methyl Isobutyl Ketone	108101	Naphthalene	91203
Glycol Ethers	NA	*Cresol	1319223
Ethylene Glycol	107211	Toluene	108883
Formaldehyde	50000	Hexane	110543
Methanol	67561	Methyl Carbitol	111773
Phenol	108952		

Note: *Cresol may include o-cresol (CAS 95-48-7), m-cresol (108-39-4), or p-cresol (106-445) or a combination thereof.

[45CSR13, R13-2410, 4.1.8.]

4.1.9. Emissions of criteria pollutants from the facility shall not exceed the following:

Emission Unit ID	VOC		PM ₁₀		CO		SO ₂		NO _x	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Line 1 (1S)	14.83	80.90	0	0	0	0	0	0	0	0
Line 2 (2S)	14.83		0	0	0	0	0	0	0	0
Line 3 (17S)	6.10		0	0	0	0	0	0	0	0
Line 4 (18S)	3.05		0	0	0	0	0	0	0	0
Cleaning (32S)	279.53	58.20	0	0	0	0	0	0	0	0
Printer (31S)	1.03	2.58	0	0	0	0	0	0	0	0
Tanks (15S, 16S, 30S)	NA	0.34	0	0	0	0	0	0	0	0

[45CSR13, R13-2410, 4.1.9.]

- 4.1.10. Emissions of Hazardous Air Pollutants (HAPs) from the facility shall not exceed 10 tons per year of any individual HAP nor 25 tons per year of all combined HAPs.

[45CSR13, R13-2410, 4.1.10.]

- 4.1.11 The metal can sheet coating lines shall be vented to thermal oxidizers (lines 1 and 2 to a common TO and lines 3 and 4 to two separate TO's) at all times during which the coating lines are in operation and shall not be by-passed, disconnected, or otherwise rendered ineffective in the control of VOC.

[45CSR13, R13-2410, 4.1.11.]

- 4.1.12. The can end making lines originally permitted in R13-1042R (issued January 26, 1989) are authorized only to be installed and operated using water based compounds with zero VOC and HAP content.

[45CSR13, R13-2410, 4.1.15.]

4.2. Monitoring Requirements

- 4.2.1. Reserved

4.3. Testing Requirements

- 4.3.1. The owner or operator of the affected facility shall construct the VOC emission reduction systems so that all volumetric flow rates and total VOC emissions can be accurately determined by the applicable test methods and procedures of 40 C.F.R. Part 60 Appendix A.

[45CSR13, R13-2410, 4.2.1.]

- 4.3.2. At least once every 5 years thereafter the permittee shall perform or have performed USEPA approved tests to determine compliance with the emission limitations and emissions control requirements set forth in Sections 4.1.6, 4.1.9, and 5.1.1.

Note: Ardagh conducted a test on February 26 through February 28, 2014 to determine the VOC capture and destruction efficiency.

[45CSR13, R13-2410, 4.2.2.]

4.4. Recordkeeping Requirements

- 4.4.1. The permittee shall maintain records of the amount and type of coatings, cleaners, pastes and thinners used and VOC and HAP emissions for the coating lines. VOC and HAP emissions shall be calculated using the minimum required control and capture efficiencies as outlined in this permit. Said records shall be maintained on a monthly and 12 month rolling total basis.

[45CSR13, R13-2410, 4.3.4.]

- 4.4.2. The permittee shall maintain hourly records of the metal sheets that are coated on each coating line as required by Sections 4.1.2, 4.1.3, 4.1.4, and 4.1.5.

[45CSR§30-5.1.c.]

4.5. Reporting Requirements

- 4.2.1. Reserved

4.6. Compliance Plan

- 4.6.1. None

5.0 Thermal Oxidizers (1C, 2C, and 3C) [emission point ID(s): (4E, 5E, 6E, 7E, 23E, 24E, 28E and 29E)]

5.1. Limitations and Standards

5.1.1. Emissions of criteria pollutants from the facility thermal oxidizers shall not exceed the following:

Emission Point ID	VOC		PM ₁₀		CO		SO ₂		NO _x	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
4E, 5E, 6E, 7E	0.08	0.36	0.11	0.50	1.26	5.52	0.01	0.04	1.50	6.57
23E, 24E	0.03	0.14	0.05	0.20	0.50	2.21	0.01	0.02	0.30	1.31
28E, 29E	0.03	0.14	0.05	0.20	0.50	2.21	0.01	0.02	0.30	1.31

Compliance with 45CSR§6-4.1 (5.1.5.) will be shown by the more stringent requirements of Section 5.1.1.

[45CSR13, R13-2410, 4.1.9.]

5.1.2. The maximum heat input rates and maximum natural gas consumption rates for pollution control devices 1C, 2C and 3C shall not exceed the limits given below:

Can Coating Line	Pollution Control Device				
	ID #	Maximum Heat Input		Maximum Natural Gas Consumed	
		MM Btu/hr	MM Btu/year	ft ³ /hr	MM ft ³ /year
Lines 1&2 (ID#s 1S & 2S)	1C	15	131,400	15000	131.4
Line 3 (ID# 17S)	2C	6	52,560	6,000	52.56
Line 4 (ID# 18S)	3C	6	52,560	6,000	52.56

[45CSR13, R13-2410, 4.1.12.]

5.1.3 The thermal oxidizers 2C and 3C shall be operated at the following minimum combustion chamber temperatures during all times the coating line associated with the control device is in operation.

Can Coating Line	Pollution Control Device	
	ID #	Minimum Combustion Chamber Operating Temperature
Line 3 (ID# 17S)	2C	1350 °F
Line 4 (ID# 18S)	3C	1275 °F ⁽¹⁾

- (1) The thermal oxidizer may be operated at a DAQ-approved lower temperature while awaiting a permit update to formally lower the temperature. DAQ approval is granted to the permittee to lower the temperature once approved testing has shown that the control device still maintains its required destruction efficiency at the new lower temperature. All testing must be preceded by an approved test protocol and followed by the submittal to DAQ of a test report.

[45CSR13, R13-2410, 4.1.13.]

- 5.1.4. During all times Wagner Coater Oven Line #1 (ID# 1S) and/or FECO Coater Oven Line #2 (ID# 2S) are in operation, thermal oxidizer 1C shall be operated at the minimum temperature established during the most recent performance test which showed compliance with Sections 4.1.6, 4.1.9 and 5.1.1.

[45CSR13, R13-2410, 4.1.14.]

- 5.1.5. No person shall cause, suffer, allow or permit particulate matter to be discharged from Thermal Oxidizer No. 1, 2, and 3 into the open air in excess of 1.41 LB/hr, 0.72 LB/hr, and 0.58 LB/hr, respectively. Compliance with 45CSR§6-4.1 will be shown by the more stringent requirements of Section 5.1.1.

[45CSR§6-4.1.]

- 5.1.6. No person shall cause, suffer, allow or permit emission of smoke into the atmosphere from any incinerator which is twenty (20%) percent opacity or greater.

[45CSR§6-4.3.]

- 5.1.7. The provisions of Section 5.1.6 [45CSR§6-4.3] shall not apply to smoke which is less than forty (40%) percent opacity, for a period or periods aggregating no more than eight (8) minutes per start-up, or six (6) minutes in any sixty (60)-minute period for stoking operations.

[45CSR§6-4.4.]

- 5.1.8. No person shall cause, suffer, allow or permit the emission of particles of unburned or partially burned refuse or ash from any incinerator which are large enough to be individually distinguished in the open air.

[45CSR§6-4.5.]

- 5.1.9. Incinerators, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors.

[45CSR§6-4.6.]

- 5.1.10. Due to unavoidable malfunction of equipment, emissions exceeding those provided for in 45CSR6 may be permitted by the Director for periods not to exceed five (5) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the malfunction. In cases of major equipment failure, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director.

[45CSR§6-8.2.]

- 5.1.11. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.1 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.

[45CSR13, R13-2410, 4.1.16.]

5.2. Monitoring Requirements

- 5.2.1. For the purpose of determining compliance with the opacity limits of 45CSR6, visible emission checks of the thermal oxidizer (1C, 2C, 3C) shall be conducted. The visible emission checks shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 C.F.R. Part 60 Appendix A, Method 22 or from the lecture portion of the 40 C.F.R. Part 60, Appendix A, Method 9 certification course.

Visible emission checks shall be conducted on a semi-annual basis. If visible emissions are observed, the permittee shall conduct visible emission checks at least once monthly for three months. If no visible emissions are observed after three months, the permittee may conduct visible emissions checks again on a semi-annual basis. These checks shall be performed at each thermal oxidizer for a sufficient time interval, but no less than one (1) minute, to determine if any visible emissions are present. Visible emission checks shall be performed during periods of facility operation and appropriate weather conditions.

If visible emissions are observed for three (3) consecutive months, the permittee shall conduct an opacity evaluation in accordance with Method 9 of 40 C.F.R. 60 Appendix A, as soon as practicable, but within 72 hours unless the visible emissions are corrected beforehand and the units are operated at normal operating conditions.

[45CSR§30-5.1.c.]

- 5.2.2. The permittee shall install, calibrate, maintain, and continuously operate a device(s) to measure and record each of the pollution control devices' combustion chamber temperatures. All temperature records shall be retained on-site for a period of at least five (5) years and shall be made available to the Secretary or his duly authorized representative upon request. The device for 2C shall have an accuracy of $\pm 2.5^{\circ}\text{C}$ ($\pm 4.5^{\circ}\text{F}$) or ± 0.75 percent of the temperature being measured expressed in degree Celsius. The devices for 1C and 3C shall be certified by the manufacturer to be accurate within plus or minus 1% in degrees Fahrenheit.

[45CSR13, R13-2410, 4.3.5., 1C, 2C and 3C]

- 5.2.3. The permittee shall monitor the Thermal Oxidizer No. 1C combustion temperature throughout the day while Wagner Coater Oven Line #1 (1S) and FECO Coater Oven Line #2 (2S) are in operation. The Thermal Oxidizer No. 1C minimum temperature is to be established during the most recent performance test (see Section 5.1.4.). The temperature monitoring device on the Thermal Oxidizer No. 1C shall have an accuracy within plus or minus 1% in degrees Fahrenheit (see Section 5.2.2.). The temperature gauge shall be calibrated annually according to manufacturer's specifications and recommendations. When VOC and HAPs are not being processed through the thermal oxidizer, the temperature can be lower than the determined minimum temperature. ~~An excursion is defined as when the combustion temperature readings are less than the minimum temperature (see Section 5.1.4.) VOC and HAPs are being processed in the oxidizer.~~ The permittee shall record all periods (during actual coating operations) in which the average temperature in the incinerator remains below the limit set forth in Section 5.1.4 for a period in excess of 3 hours. A period of time meeting these aforementioned temperature and time criteria shall be deemed an excursion for purposes of 40 C.F.R. Part 64, thus initiating an inspection and evaluation, corrective action, recordkeeping and reporting requirement (permit conditions 5.2.8., 5.4.7., 5.5.2.)

[45CSR§30-5.1.c; 40 C.F.R. § 64.6 (c)]

- 5.2.4. The permittee shall monitor the Thermal Oxidizer No. 2C combustion temperature throughout the day while Wagner Coater Oven Line #3 (17S) is in operation. When VOC and HAPs are not being processed through the thermal oxidizer, the temperature can be lower than the determined minimum temperature of 1350 °F. The temperature monitoring device on the Thermal Oxidizer No. 2C shall have an accuracy of ± 2.5 °C (± 4.5 °F) or ± 0.75 percent of the temperature being measured expressed in degree Celsius (see Section 5.2.2.). The temperature gauge shall be calibrated annually according to manufacturer's specifications and recommendations. ~~An excursion is defined as when the combustion temperature readings are less than the minimum temperature of 1350 °F and VOC and HAPs are being processed in the oxidizer.~~ The permittee shall also record all periods (during actual coating operations) in which the average temperature in the incinerator remains below 1350 °F for a period in excess of 3 hours. A period of time meeting these aforementioned temperature and time criteria shall be deemed an excursion for purposes of 40 C.F.R. Part 64, thus initiating an inspection and evaluation, corrective action, recordkeeping and reporting requirement (permit conditions 5.2.8., 5.4.7., 5.5.2.)

[45CSR§30-5.1.c; 40 C.F.R. § 64.6 (c)]

- 5.2.5. The permittee shall monitor the Thermal Oxidizer No. 3C combustion temperature throughout the day while LTG Coater Oven Line #4 (18S) is in operation. When VOC and HAPs are not being processed through the thermal oxidizer, the temperature can be lower than the determined minimum temperature of 1275 °F. The temperature monitoring device on the Thermal Oxidizer No. 3C shall have an accuracy within plus or minus 1% in degrees Fahrenheit (see Section 5.2.2.). The temperature gauge shall be calibrated annually according to manufacturer's specifications and recommendations. ~~An excursion is defined as when the combustion temperature readings are less than the minimum temperature of 1275 °F and VOC and HAPs are being processed in the oxidizer.~~ The permittee shall also record all periods (during actual coating operations) in which the average temperature in the incinerator remains below 1275 °F for a period in excess of 3 hours. A period of time meeting these aforementioned temperature and time criteria shall be deemed an excursion for purposes of 40 C.F.R. Part 64, thus initiating an inspection and evaluation, corrective action, recordkeeping and reporting requirement (permit conditions 5.2.8., 5.4.7., 5.5.2.)

[45CSR§30-5.1.c; 40 C.F.R. § 64.6 (c)]

- 5.2.6. *Proper maintenance.* At all times, the owner or operator shall maintain the monitoring specified in Sections 5.2.3, 5.2.4, and 5.2.5, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

[45CSR§30-5.1.c; 40 C.F.R. § 64.7 (b)]

- 5.2.7. *Continued operation.* Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

[45CSR§30-5.1.c; 40 C.F.R. § 64.7 (c)]

5.2.8. *Response to excursions or exceedances.*

- a. Upon detecting an excursion or exceedance, the owner or operation shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- b. Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

[45CSR§30-5.1.c; 40 C.F.R. § 64.7 (d)]

- 5.2.9. *Documentation of need for improved monitoring.* After approval of monitoring under 40 C.F.R. 64, if the owner or operator identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the part 70 or 71 permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

[45CSR§30-5.1.c; 40 C.F.R. § 64.7 (e)]

5.2.10. *Quality Improvement Plan (QIP)*

- a. Based on the results of a determination made under Section 5.2.8.b, the Administrator or the permitting authority may require the owner or operator to develop and implement a QIP. If a QIP is required, then it shall be developed, implemented, and modified as required according to 40 C.F.R. §§ 64.8 (b) through (e). Refer to Section 5.5.2.b.iii for the reporting required when a QIP is implemented.
- b. If during a calendar quarter, an excursion (as defined under Sections 5.2.3, 5.2.4, and 5.2.5.) occurred on more than five (5) percent of the days that the thermal oxidizer (1C, 2C, or 3C) was operated, the permittee shall develop and implement a QIP. The Director may waive this QIP requirement upon a demonstration that the cause(s) of the excursions have been corrected, or may require stack tests at any time pursuant to Section 3.3.1.

[45CSR§30-5.1.c; 40 C.F.R. § 64.8]

5.3. Testing Requirements

5.3.1. At such reasonable times as the Director may designate, the operator of any incinerator shall be required to conduct or have conducted stack tests to determine the particulate matter loading, by using 40 C.F.R. Part 60, Appendix A, Method 5 or other equivalent EPA approved method approved by the Director, in exhaust gases. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or the Director's authorized representative, may at the Director's option witness or conduct such stack tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices.

[45CSR§6-7.1.]

5.3.2. The Director, or the Director's duly authorized representative, may conduct such other tests as the Director may deem necessary to evaluate air pollution emissions other than those noted above.

[45CSR§6-7.2.]

5.3.3. See Sections 4.3.1 and 4.3.2 for additional testing.

5.4. Recordkeeping Requirements

5.4.1. The permittee shall maintain records of all monitoring data required by Section 5.2.1, documenting the date and time of each visible emission check, the emission point or equipment/source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6 - 10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9. For an emission unit out of service during the evaluation, the record of observation may note "out of service" (O/S) or equivalent

[45CSR§30-5.1.c.]

5.4.2. The permittee shall maintain records of the amount of natural gas burned in the thermal oxidizers. Said records shall be maintained on a monthly and 12 month rolling total basis.

[45CSR13, R13-2410, 4.3.6.]

5.4.3. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.1, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

[45CSR13, R13-2410, 4.3.2.]

5.4.4. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.1, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

- a. The equipment involved.
- b. Steps taken to minimize emissions during the event.
- c. The duration of the event.

- d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.
- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[45CSR13, R13-2410, 4.3.3.]

- 5.4.5. The permittee shall maintain the following records in the manner specified under Condition 3.4.2:

- a. Records of the thermal oxidizers' (1C, 2C, and 3C) combustion temperatures shall be continuously recorded and maintained. The temperature monitoring data shall be recorded using either the process distributed control system, operating log, or other equivalent method approved by the Director.
- b. The data collection frequency shall be at least one (1) data point read every sixty (60) seconds by a continuous electronic recorder. Fifteen (15) consecutive data points shall be averaged to generate one (1) recorded datum every complete 15-minute cycle, equivalent to four (4) data points equally spaced over one (1) hour.
- c. The permittee must determine the average of all recorded readings for each successive 3-hour period of the emission control device operation.
- ~~b~~ d. A record of the number, duration and cause(s) of all excursions or exceedances, and the corrective actions taken shall be maintained for the thermal oxidizers (1C, 2C, and 3C).
- ~~e~~ e. A record of the number, duration, and cause for the downtime of the thermal oxidizers' (1C, 2C, and 3C) temperature gauge shall be kept. This excludes downtime for calibration checks. This document shall also include the measures taken to correct the downtime.
- ~~d~~ f. The permittee shall maintain maintenance records on the thermal oxidizers (1C, 2C, and 3C).

[45CSR§30-5.1.c; 40 C.F.R. § 64.9 (b)]

- 5.4.6. The thermal oxidizers' (1C, 2C, and 3C) records of all periodic testing/checks, calibration, and maintenance per manufacturer's specifications and recommendations shall be maintained.

All records shall be maintained in the manner specified in Condition 3.4.2.

[45CSR§30-5.1.c; 40 C.F.R. § 64.9 (b)]

- 5.4.7. *General recordkeeping requirements for 40 C.F.R. Part 64 (CAM).* The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. § 64.8 (Condition 5.2.10) and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40 C.F.R. Part

64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

[45CSR§30-5.1.c.; 40 C.F.R. § 64.9 (b)]

5.5. Reporting Requirements

- 5.5.1. Any violation(s) of the allowable visible emission requirement for any emission source discovered during observations using 40 C.F.R. Part 60 Appendix A, Method 9 must be reported in writing to the Director of the Division of Air Quality as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.

[45CSR§30-5.1.c.]

- 5.5.2. *General reporting requirements for 40 C.F.R. Part 64 (CAM)*

- a. On and after the date specified in 40 C.F.R. § 64.7 (a) by which the permittee must use monitoring that meets the requirements of 40 C.F.R. Part 64, the permittee shall submit monitoring reports to the DAQ in accordance with Section 3.5.6.
- b. A report for monitoring under 40 C.F.R. Part 64 shall include, at a minimum, the information required under Section 3.5.8 and the following information, as applicable:
 - i. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
 - ii. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
 - iii. A description of the actions taken to implement a QIP during the reporting period as specified in 40 C.F.R. § 64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[45CSR§30-5.1.c.; 40 C.F.R. § 64.9 (a)]

5.6. Compliance Plan

- 5.6.1. None

5.7. CAM Plan Summary of Requirements for Thermal Oxidizer No. 1 (1C)

	Indicator No. 1
I. Indicator	Combustion chamber temperature
Measurement Approach	The combustion chamber temperature is monitored with a thermocouple.
II. Indicator Range	An excursion is defined as average temperature readings less than the determined minimum temperature for a period in excess of 3-hours when VOC and HAPs are being processed in the oxidizer. (Sections 5.1.4 and 5.2.3.) Excursion triggers an inspection and evaluation, corrective action, recordkeeping and reporting requirements (Section 5.2.8).
III. Performance Criteria	
A. Data Representativeness	Combustion chamber temperature measured using a thermocouple with an accuracy of plus or minus 1% in degrees Fahrenheit. (Section 5.2.2.)
B. Verification of Operational Status	Not applicable.
C. QA/QC Practices and Criteria	The temperature gauge shall be calibrated annually. (Section 5.2.3.)
D. Monitoring Frequency	Measured continuously while the Coating Lines #1 and #2 are operating. (Section 5.2.3.)
Data Collection Procedure	Recorded continuously (Section 5.4.5-a 5.4.5) with data points collected at least every 60 seconds.
Averaging Period	No average is taken. 15 consecutive data points averaged for 15 minute interval. One averaging period is recorded every 15 minutes and four numbers are recorded per hour at evenly spaced intervals

5.8. CAM Plan Summary of Requirements for Thermal Oxidizer No. 2 (2C)

	Indicator No. 1
I. Indicator	Combustion chamber temperature
Measurement Approach	The combustion chamber temperature is monitored with a thermocouple.
II. Indicator Range	An excursion is defined as average temperature readings less than 1350 °F for a period in excess of 3 hours when VOC and HAPs are being processed in the oxidizer. (Sections 5.1.3 and 5.2.4.) Excursion triggers an inspection and evaluation, corrective action, recordkeeping and reporting requirements (Section 5.2.8).
III. Performance Criteria	
A. Data Representativeness	Combustion chamber temperature measured using a thermocouple with an accuracy of $\pm 2.5^{\circ}\text{C}$ ($\pm 4.5^{\circ}\text{F}$) or ± 0.75 percent of the temperature being measured expressed in degree Celsius. (Section 5.2.2.)
B. Verification of Operational Status	Not applicable.
C. QA/QC Practices and Criteria	The temperature gauge shall be calibrated annually. (Section 5.2.4.)
D. Monitoring Frequency	Measured continuously while the Coating Line No. 3 is operating. (Section 5.2.4.)
Data Collection Procedure	Recorded continuously (Section 5.4.5.a 5.4.5) with data points collected at least every 60 seconds.
Averaging Period	No average is taken. 15 consecutive data points averaged for 15 minute interval. One averaging period is recorded every 15 minutes and four numbers are recorded per hour at evenly spaced intervals

5.9. CAM Plan Summary of Requirements for Thermal Oxidizer No. 3 (3C)

	Indicator No. 1
I. Indicator	Combustion chamber temperature
Measurement Approach	The combustion chamber temperature is monitored with a thermocouple.
II. Indicator Range	An excursion is defined as average temperature readings less than 1275°F for a period in excess of 3 hours when VOC and HAPs are being processed in the oxidizer. (Sections 5.1.3 and 5.2.5.) Excursion triggers an inspection and evaluation, corrective action, recordkeeping and reporting requirements (Section 5.2.8).
III. Performance Criteria	
A. Data Representativeness	Combustion chamber temperature measured using a thermocouple with an accuracy of plus or minus 1% in degrees Fahrenheit. (Section 5.2.2.)
B. Verification of Operational Status	Not applicable.
C. QA/QC Practices and Criteria	The temperature gauge shall be calibrated annually. (Section 5.2.5.)
D. Monitoring Frequency	Measured continuously while the Coating Lines #4 is operating. (Section 5.2.5.)
Data Collection Procedure	Recorded continuously (Section 5.4.5.a 5.4.5) with data points collected at least every 60 seconds.
Averaging Period	No average is taken. 15 consecutive data points averaged for 15 minute interval. One averaging period is recorded every 15 minutes and four numbers are recorded per hour at evenly spaced intervals

Appendix F
Electronic Copy of Title V Renewal Application