Received
May 22, 2020
WV DEP/Div of Air Quality

Division of Air Quality Permit Application Submittal

Please find attached a permit application for : Bimbo Bakeries USA, Inc.; 1300 Adams Avenue, Huntington, WV 25704
[Company Name; Facility Location]

- DAQ Facility ID (for existing facilities only): 011-00062
- Current 45CSR13 and 45CSR30 (Title V) permits associated with this process (for existing facilities only): R30-01100062-2015

- Type of NSR Application (check all that apply):
  - ☐ Construction
  - ☐ Modification
  - ☐ Class I Administrative Update
  - ☐ Class II Administrative Update
  - ☐ Relocation
  - ☐ Temporary
  - ☐ Permit Determination

- Type of 45CSR30 (TITLE V) Application:
  - ☐ Title V Initial
  - ☑ Title V Renewal
  - ☐ Administrative Amendment**
  - ☐ Minor Modification**
  - ☐ Significant Modification**
  - ☐ Off Permit Change

****If the box above is checked, include the Title V revision information as ATTACHMENT S to the combined NSR/Title V application.**

- Payment Type:
  - ☐ Credit Card (Instructions to pay by credit card will be sent in the Application Status email.)
  - ☐ Check (Make checks payable to: WVDEP – Division of Air Quality)
    Mail checks to:
    WVDEP – DAQ – Permitting
    Attn: NSR Permitting Secretary
    601 57th Street, SE
    Charleston, WV 25304

Please wait until DAQ emails you the Facility ID Number and Permit Application Number. Please add these identifiers to your check or cover letter with your check.

- If the permit writer has any questions, please contact (all that apply):
  - ☑ Responsible Official/Authorized Representative
    - Name: Dean Jeffers
    - Email: dean.jeffers@grupobimbo.com
    - Phone Number: 304-523-8411 x265
  - ☑ Company Contact
    - Name: Paul White
    - Email: paul.white@grupobimbo.com
    - Phone Number: 304-523-8411 x219
  - ☑ Consultant
    - Name: Jennifer Markwardt
    - Email: jmarkwardt@trinityconsultants.com
    - Phone Number: 636-256-5652 (w); 314-795-3757(m)

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PROJECT REPORT

Bimbo Bakeries USA, Inc. > Huntington Bakery

Title V Operating Permit Renewal Application
Permit No. R30-01100062-2015

TRINITY CONSULTANTS
16252 Westwoods Business Park Drive
Ellisville, MO 63021
(636) 530-4600

May 2020

Project 202601.0035

Environmental solutions delivered uncommonly well

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LIST OF TABLES

Bimbo Bakeries USA, Inc. (BBU) operates a commercial baking facility at 1300 Adams Avenue, Huntington, West Virginia 25704 (Huntington bakery). The facility currently operates in accordance with West Virginia Department of Environmental Protection (WVDEP) Division of Air Quality Title V operating permit R30-01100062-2015, issued on November 23, 2015.

The current Title V permit expires on November 23, 2020. BBU is submitting this timely and complete Title V Operating Permit (TVOP) renewal application by the renewal submission deadline of May 23, 2020 (six months before the expiration of the current permit) in accordance with Series 30, Section 4.1.a.3 of the WVDEP Division of Air Quality (DAQ) Code of State Rules (C.S.R.) §45-30-4.1.a.3.

Presuming WVDEP finds this application administratively complete, BBU may continue to operate the Huntington bakery under the terms of the existing Title V permit until the renewed permit is issued, even if this issuance would occur after the current permit's expiration date.

1.1. FACILITY DESCRIPTION

BBU's Huntington bakery is a commercial baking facility using flour, water, yeast, salt, and other ingredients to manufacture bread, buns, and rolls. The principal pollutants emitted from baking are volatile organic compounds (VOC), emitted from the baking ovens as a result of yeast fermentation (of process sugars). Yeast fermentation reaction products include ethanol (VOC), carbon dioxide (CO_2), and other by-products. The baking ovens fire natural gas, additionally emitting criteria pollutants associated with combustion. Ancillary operations include pneumatic flour transfer to bulk storage silos and into the production process, natural gas-fired boilers (steam heat), emergency generators, ink jet printing of plastic packaging, and bulk oil storage tanks.

The emission units are separated into two categories – significant emission units and insignificant emission units. The insignificant units are identified as such in accordance with the Insignificant Activities list provided by WVDEP (Section 4). Each emission unit and associated maximum design rates are presented in Table 1-1:

Table 1-1. Emission Units

Emission Unit ID	Emission Point ID	Description of Unit	Maximum Design Rate
1S	1E, 2E, 3E	58 Tray Baker Perkins 970 Oven	5.940 MMBtu/hr 15,000 lb bread/hr
2S[a]	4E, 5E, 6E	38 Tray Teledyne Readco Oven	5.390 MMBtu/hr 7.200 lb buns/hr
3S	7E, 8E	18 Tray Baker Perkins 970 Oven	1.980 MMBtu/hr 4,255 lb buns/hr
4S	9E	Flour Handling System	39,000 tons/year (limited)
5S	10E	Ink Jet Printing	
6S	11E	Kohler Emergency Generator	350 kW
7S	12E	Caterpillar Emergency Generator	260 kW
N/A	N/A	Solvent Parts Washer	
Insignificant		Boiler No. 1 (Hurst)	5.02 MMBtu/hr

Emission Unit ID	Emission Point ID	Description of Unit	Maximum Design Rate
Insignificant		Boiler No. 2 (Kewanee)	4.2 MMBtu/hr
Insignificant		Water Heaters	< 300,000 Btu/hr
Insignificant		Water Heater	3.0 MMBtu/hr

Additional insignificant activities are identified in Section 4 of the General Forms. Process flow diagrams are included in Attachment C.

1.2. FACILITY UPDATES

BBU has not added any units to the Huntington bakery since the issuance of operating permit R30-01100062-2015. The Caterpillar Emergency Generator has been out of service and not in use since 2018, but remains on-site.

1.3. TITLE V APPLICATION ORGANIZATION

This West Virginia Title V permit renewal application is organized as follows:

- Section 2: Emissions Calculation Methodology;
- Section 3: Regulatory Discussion;
- Section 4: Title V Application Form;
- Attachment A: Area Map;
- Attachment B: Plot Plan;
- Attachment C: Process Flow Diagram;
- Attachment D: Equipment Table;
- Attachment E: Emission Unit Forms;
- Attachment F: Schedule of Compliance Forms (Not Applicable);
- Attachment G: Air Pollution Control Device Form;
- Attachment H: Compliance Assurance Monitoring Form;
- Attachment I: Emissions Calculations; and
- Attachment J: Safety Data Sheets (SDS).

This section contains a detailed description of the calculation methodology used to determine the emission rates for all affected sources at the Huntington bakery. Detailed emissions calculations are included in Attachment I.

2.1. VOC EMISSIONS FROM YEAST FERMENTATION

Stack testing performed on the bakery ovens during 1994 and 1995 yielded an emission factor for the bread oven of 3.053 lb VOC/1,000 lb bread baked. Similarly, the emission factor for bun baking in the ovens was 3.437 lb VOC/1,000 lb buns baked. The maximum potential emissions from each oven are calculated based on the maximum hourly throughput of the ovens and the limits imposed in the construction permit for the site (to comply with the State Reasonably Available Control Technology or RACT requirements). See Attachment Table I-1 for detailed calculations.

2.2. EMISSIONS CALCULATIONS FOR COMBUSTION OF NATURAL GAS

The maximum amount of fuel used in each of the combustion units was calculated by using the maximum design heat input rating for each unit and by assuming that the total amount of natural gas used at the facility was used in the listed units. The calculated fuel usage numbers are listed in Attachment Table I-2. The Maximum Hourly Design Rate (MHDR) is calculated based on the maximum design heat input rating for each oven and boiler and AP-42 default heating values of natural gas (1,000 Btu/cf). Potential emissions from combustion of natural gas in the emission units are based on the MHDR calculated in Attachment Table I-2 multiplied by the emission factors for the fuel from AP-42 (Section 1.4).

All other pollutant potential emissions are calculated in a similar manner. Negligible or trace amounts of Hazardous Air Pollutants (HAP) may result from the combustion of natural gas. For purposes of this application, all HAP emission factors were summed to calculate combined potential HAP emissions rates. Attachment Table I-3 includes detailed calculations.

2.3. EMISSIONS CALCULATIONS FOR EMERGENCY GENERATORS

The maximum amount of fuel used in each of the generators was calculated by using the maximum design heat input rating for each unit and a maximum hours of operation per year of 500 (September 6, 1995 memo from John S. Seitz regarding “Calculating Potential to Emit (PTE) for Emergency Generators”). The calculated fuel usage numbers are listed in Attachment Table I-4. The MHDR is calculated based on the maximum kW input rating for each generator and the AP-42 default heating value of diesel (139,000 Btu/gallon). Potential emissions from combustion of diesel fuel in the emission units in Attachment Table I-5 are based on the MHDR multiplied by the emission factors for the fuel from AP-42 Section 3.1 and 40 CFR 98, Table C-2.

2.4. PARTICULATE EMISSIONS FROM FLOUR HANDLING SYSTEM

Emissions from the flour handling system are in the form of particulate matter ($PM_{2.5}$ and PM_{10}). PM is emitted at each transfer point in the flour handling system where air is vented through insertable quick change (IQC) filters on the silos or fabric filter bags. With the exception of the outside silos, these transfer points do not vent directly to the atmosphere, but vent through the filter bags and into the building.

The filter bags are fabricated of a tightly woven fabric that allows air to pass, while typically retaining most or all of the PM. Information provided by Frank Haile and Associates, a supplier of fabric-filter bags, indicated that

0.25 to 0.5 pounds of fine flour dust (i.e. PM_{10}) may escape through the filter media to the outside atmosphere for every 50,000 pounds of flour loaded or transferred. The facility has twenty different transfer points with air relief vents and the fabric filters: at the flour storage silos, at the sifters and at the mixers. The maximum hourly emissions were calculated using the bakery input capacity to the mixers (550 lb/minute). The maximum flour usage is limited to 39,000 tons/year. Attachment Table I-6 provides detailed calculations of emissions from the flour handling system.

2.5. VOC EMISSIONS FROM INK JET PRINTING

The facility operates ink jet coders to date stamp packaged products. VOC emissions are calculated assuming an hourly usage rate and using VOC contents from representative inks and solvents. Attachment Table I-7 includes detailed emissions calculations and Attachment J includes SDS for the ink and solvent currently in use at the facility.

2.6. VOC EMISSIONS FROM SOLVENT PARTS WASHER

The facility maintains one (1) solvent parts washer for the cleaning of miscellaneous metal parts in the maintenance shop. In January 2020, the bakery switched to a new type of non-VOC cleaner. Since the VOC content of SW-4 is 0.0000005% and the VOC content of SW-7 is 0%, calculation of emissions from this unit have not been included in this application. Two SDS for the new parts washer solvents are included in Attachment J.

2.7. SUMMARY OF AIR EMISSIONS CALCULATIONS

Attachment Table I-8 summarizes the potential emissions for all emission points at the BBU Huntington bakery. The majority of emissions from the bread and bun baking processes are VOCs. Attachment Table I-8 represents the emissions from the facility based on limits imposed in the air construction permit and the current Title V Operating Permit for the facility.

This section documents the applicability determinations made for Federal and State air quality regulations. In this section, applicability or non-applicability of the following regulatory programs is addressed:

- Prevention of Significant Deterioration (PSD) permitting;
- Non-attainment New Source Review (NNSR) permitting;
- Title V of the 1990 Clean Air Act Amendments;
- Compliance Assurance Monitoring (CAM);
- New Source Performance Standards (NSPS);
- National Emission Standards for Hazardous Air Pollutants (NESHAP); and
- West Virginia State Implementation Plan (SIP) regulations.

This review is presented to supplement and/or add clarification to the information provided in the Title V operating permit application forms, which fulfill the requirement to include citations and descriptions of applicable statutory and administrative code requirements.

In addition to providing a summary of applicable requirements, this section of the application also provides non-applicability determinations for certain regulations, allowing the WVDEP to confirm that identified regulations are not applicable to the Huntington bakery. Note that explanations of non-applicability are limited to those regulations for which there may be some question of applicability specific to the operations at the facility. Regulations that are categorically non-applicable are not discussed (e.g., NSPS Subpart J, Standards of Performance for Petroleum Refineries).

3.1. PSD AND NNSR SOURCE CLASSIFICATION

Federal construction permitting programs regulate new and modified sources of attainment pollutants under PSD and new and modified sources of non-attainment pollutants under NNSR. PSD regulations apply when a new source is constructed in which emissions exceed major source thresholds, an existing minor source undergoes a modification in which emission increases exceed PSD major source thresholds, or an existing major source undergoes a modification in which emission increases exceed PSD significant emission rates. The Huntington bakery is not considered an existing major source with respect to PSD since VOC PTE is less than 250 tons/year, and as such, when undertaking modifications may be subject to NSR permit requirements. No new sources are being installed as part of this application and therefore PSD is not triggered.

NNSR regulations only apply in areas designated as non-attainment. The Huntington bakery is in Cabell County, which is designated as attainment for all criteria pollutants.[1] Therefore, NNSR regulations do not apply to the facility.

3.2. TITLE V OPERATING PERMIT PROGRAM

Title 40 of the Code of Federal Regulations Part 70 (40 CFR 70) establishes the federal Title V operating permit program. West Virginia has incorporated the provisions of this federal program into its Title V operating permit program in West Virginia Code of State Regulations (CSR) 45-30. The major source thresholds with respect to the West Virginia Title V operating permit program regulations are 10 tons per year (tpy) of a single HAP, 25 tpy

[1] U.S. EPA Greenbook, https://www3.epa.gov/airquality/greenbook/anayo_wv.html, as of April 24, 2020.

of any combination of HAPs, and 100 tpy of all other regulated pollutants. The potential emissions of the Huntington bakery exceed major source thresholds for the Title V permit program. Therefore, the facility is a major source with respect to the Title V Program. The Huntington bakery currently operates under Title V Permit No. R30-01100062-2015. This renewal application is being submitted to meet the requirements of the Title V program.

3.3. COMPLIANCE ASSURANCE MONITORING

Under 40 CFR 64, the Compliance Assurance Monitoring (CAM) regulations, facilities are required to prepare and submit monitoring plans for certain emissions units with the initial or renewal Title V operating permit application. CAM Plans are intended to provide an ongoing and reasonable assurance of compliance with emission limits for sources that utilize active control devices. There have been no changes since the last renewal application which would trigger a CAM review as the potentially affected units have not changed, the stated exemptions from CAM have not changed, and no control devices have been installed on previously uncontrolled units with pre-control emissions greater than the major source threshold.

3.4. NEW SOURCE PERFORMANCE STANDARDS

New Source Performance Standards (NSPS), located in 40 CFR 60, require new, modified, or reconstructed sources to control emissions to the level achievable by the best demonstrated technology specified in the applicable provisions. There are no NSPS regulations that are applicable to the Huntington bakery. The following is a summary of non-applicability determinations for NSPS regulations of relevance to the Huntington bakery.

3.4.1. NSPS Subparts K, Ka, and Kb – Storage Vessels for Petroleum Liquids and Volatile Organic Liquids

These subparts apply to storage tanks of certain sizes constructed, reconstructed, or modified during various time periods. Subpart K applies to storage tanks constructed, reconstructed, or modified prior to 1978, and Subpart Ka applies to those constructed, reconstructed, or modified prior to 1984. Both Subparts K and Ka apply to storage tanks with a capacity greater than 40,000 gallons. Subpart Kb applies to volatile organic liquid (VOL) storage tanks constructed, reconstructed, or modified after July 23, 1984 with a capacity equal to or greater than 75 m^3 (~19,813 gallons). All storage tanks at the Huntington bakery have a capacity less than 75 m^3, including the soy oil tanks (6,100 gallons and 2,035 gallons) and the diesel tanks for the emergency generators (300 gallons each). Therefore, Subparts K, Ka, and Kb do not apply to the storage tanks at the facility.

3.4.2. NSPS Subparts Dc – Small Industrial-Commercial-Institutional Steam Generating Units

This subpart applies to facilities with steam generating units for which construction, modification, or reconstruction is commenced after June 9, 1989, and that has a maximum design heat input capacity of greater than 10 million British thermal units per hour (MMBtu/hr) but less than 100 MMBtu/hr, All steam-generating units at the Huntington bakery have a heat input capacity of less than 10 MMBtu/hr, Therefore, Subpart Dc does not apply to the steam generating units at the facility.

3.4.3. NSPS Subparts IIII – Stationary Compression Ignition Internal Combustion Engines

This subpart applies to manufacturers, owners, and operators of stationary compression ignition internal combustion engines (ICE) that have been constructed, reconstructed, or modified after various dates, the

earliest of which is July 11, 2005. Two diesel fired engines at the facility were in use on-site prior to 2004 (EU 6S and EU 7S). Therefore, NSPS Subpart IIII does not apply to these ICE at the Huntington bakery.

3.4.4. Non-Applicability of All Other NSPS

NSPS are developed for particular industrial source categories. The applicability of a particular NSPS to the Huntington bakery, other than the Subparts mentioned above, can be readily ascertained based on the industrial source category covered. All other NSPS are categorically not applicable.

3.5. NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS

Regulatory requirements for facilities subject to NESHAP standards are contained in 40 CFR Part 61 and 40 CFR Part 63. 40 CFR Part 61 NESHAP standards are defined for specific pollutants while Part 63 Maximum Achievable Control Technology (MACT) standards are defined for source categories where allowable emission limits are established on the basis of a MACT determination for a particular source (major or area). A major source of HAP is defined as having potential emissions in excess of 25 tpy for total HAP and/or potential emissions in excess of 10 tpy for any individual HAP. Part 63 MACT standards apply to sources in specifically-regulated industrial source categories (Clean Air Act (CAA) Section 112(d)) or on a case-by-case basis (CAA Section 112(g)) for facilities not regulated as a specific industrial source type.

The Huntington bakery is an area source of HAP emissions since its potential emission of HAP are less than the 10/25 tpy major threshold. Besides 40 CFR 63 Subpart A (MACT Subpart A), the following MACT standard is applicable to the facility:

- 40 CFR Part 63 Subpart ZZZZ – Stationary Reciprocating Internal Combustion Engines (RICE)

The applicability of this Subpart is discussed in the following below.

3.5.1. 40 CFR 63 Subpart ZZZZ – Stationary Reciprocating Internal Combustion Engines

This MACT standard applies to stationary reciprocating combustion engines (RICE) at major and area sources. The engines are classified as compression-ignition (CI) emergency units since diesel is combusted. The engines meet the definition of emergency stationary RICE in §63.6675, which includes references to §63.6640(f).

The two emergency generators on-site (EU 6S and EU 7S) were originally designated as insignificant sources. However, the RICE MACT was modified on March 3, 2010 to include stationary emergency engines at area sources of HAPs. Since the bakery is an area source, the generators were subject to the standard (40 CFR 63 Subpart ZZZZ) starting on May 3, 2013.

3.6. WEST VIRGINIA SIP REGULATIONS

The Huntington bakery is potentially subject to regulations contained in the West Virginia Code of State Regulations, Chapter 45 (CSR). The CSR fall under two main categories: those regulations that are generally applicable (e.g., permitting requirements), and those that have specific applicability.

3.6.1. 45 CSR 2: To Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers

Since the combustion units have maximum design heat input capacities less than 10 MMBtu/hr, the units are exempt from the requirements of this section per 45 CSR 2A Section 3.1.

3.6.2. 45 CSR 4: To Prevent and Control the Discharge of Air Pollutants into the Air Which Causes or Contributes to an Objectionable Odor

The Huntington bakery is subject to this requirement. In accordance with the Title V permit, BBU maintains appropriate records and takes appropriate response measures for all odor complaints.

3.6.3. 45 CSR 6: Control of Air Pollution from Combustion of Refuse

The Huntington bakery operates in compliance with this rule and does not conduct burning of refuse or open burning at the facility.

3.6.4. 45 CSR 7: To Prevent and Control Particulate Matter Emissions from Manufacturing Processes

The Huntington bakery is generally subject to these requirements, which include particulate matter and opacity limitations for manufacturing operations, based on process weight rate. Except where more stringent, these limits are incorporated into the current Title V permit.

3.6.5. 45 CSR 10: To Prevent and Control Air Pollution from the Emission of Sulfur Oxides

This regulation is potentially applicable to the boilers and water heaters at the Huntington bakery as they produce heat or power by indirect heat transfer and are, by definition, “fuel burning units.” However, all units are below the 10 MMBtu/hr exemption per 45 CSR 10 Section 10.1. The ovens are also not subject to this rule because their potential to emit sulfur dioxides is less than 500 pounds per year per 45 CSR 10 Section 4.1.e.

3.6.6. 45 CSR 21: To Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds

The Huntington bakery is subject to certain sections of this Subpart as incorporated into permit R13-2005D Section 4.1.5, issued January 27, 2014. The facility is subject to requirements in 45 CSR 21 Section 40 because the aggregate maximum theoretical emissions of VOC are greater than 100 tons per calendar year in the absence of control devices. As such, the facility will continue to comply with these requirements as incorporated into the current Title V permit.

3.6.7. 45 CSR 27: To Prevent and Control Emissions of Toxic Air Pollutants

The storage tanks at the Huntington bakery are potentially subject to this regulation. Given the small size of these storage tanks and the low level of emissions, no additional control measures are required. As such, the requirements related to these provisions are not applicable.

3.6.8. 45 CSR 29: Submission of Emission Statements for Volatile Organic Compound Emissions and Oxides of Nitrogen Emissions

The Huntington bakery is subject to the submission requirements of this rule as the facility's plant-wide actual VOC emissions are greater than 25 tons per year.

3.6.9. 45 CSR 30: Requirements for Operating Permits

The Huntington bakery is subject to the requirement to obtain an operating permit. The plant's Title V permit (R30-01100062-2015) was issued under this rule and this renewal application satisfies the application requirements of 45 CSR 30. Also, under this rule, the Huntington bakery is subject to operating under the requirements set forth in the issued Title V permit. This application is being submitted to fulfill the permit renewal requirements.

4. TITLE V APPLICATION FORMS

The WVDEP permit application forms contained in this application include all applicable Title V application forms and the required attachments. The General Forms are attached to this section and all other forms are included with the appropriate attachment.

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

Received
May 22, 2020
WV DEP/Div of Air Quality

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):**
Bimbo Bakeries USA, Inc.

2. Facility Name or Location:
Bimbo Bakeries USA, Inc.

3. DAQ Plant ID No.:
011 -- 00062

4. Federal Employer ID No. (FEIN):
75-2491201

5. **Permit Application Type:**

- ☐ Initial Permit — When did operations commence?
- ☑ Permit Renewal — What is the expiration date of the existing permit? 11/23/2020
- ☐ Update to Initial/Renewal Permit Application

6. Type of Business Entity:

- ☑ Corporation
- ☐ Governmental Agency
- ☐ LLC
- ☐ Partnership
- ☐ Limited Partnership

7. Is the Applicant the:

☐ Owner ☐ Operator ☑ 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: 225

9. Governmental Code:

- ☑ Privately owned and operated; 0
- ☐ Federally owned and operated; 1
- ☐ State government owned and operated; 2
- ☐ County government owned and operated; 3
- ☐ Municipality government owned and operated; 4
- ☐ District government owned and operated; 5

10. Business Confidentiality Claims

Does this application include confidential information (per 45CSR31)? ☐ Yes ☑ 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: 1300 Adams Avenue		
City: Huntington	**State:** WV	**Zip:** 25704 -
Telephone Number: (304) 523 - 8411	**Fax Number:** (304) 523 - 9268	

12. Facility Location		
Street: 1300 Adams Avenue	**City:** Huntington	**County:** Cabell
UTM Easting: 371 km	**UTM Northing:** 4252 km	☐ 17 ☑ 18
Directions: Interstate 64 to Adams Avenue exit; between Adams and Washington Avenue and between 13th Street West and 14th Street West		
Portable Source? ☐ Yes ☑ No		
Is facility located within a nonattainment area? ☐ Yes ☑ No	**If yes, for what air pollutants?**	
Is facility located within 50 miles of another state? ☑ Yes ☐ No	**If yes, name the affected state(s).** Ohio Kentucky	
Is facility located within 100 km of a Class I Area[1]? ☐ Yes ☑ No If no, do emissions impact a Class I Area? ☐ Yes ☑ 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: Dean Jeffers		**Title:** Plant Manager
Street or P.O. Box: 1300 Adams Avenue		
City: Huntington	**State:** WV	**Zip:** 25704 -
Telephone Number: (304) 523 - 8411 x265	**Fax Number:** (304) 525 - 9268	
E-mail address: dean.jeffers@grupobimbo.com		
Environmental Contact: Paul White		**Title:** Quality & Food Safety Manager
Street or P.O. Box: 1300 Adams Avenue		
City: Huntington	**State:** WV	**Zip:** 25704 -
Telephone Number: (304) 523 - 8411 x219	**Fax Number:** (304) 525 - 9268	
E-mail address: paul.white@grupobimbo.com		
Application Preparer: Jennifer Markwardt		**Title:** Senior Consultant
Company: Trinity Consultants		
Street or P.O. Box: 16252 Westwoods Business Park Drive		
City: Ellisville	**State:** MO	**Zip:** 63021 -
Telephone Number: (636) 256 - 5652	**Fax Number:** (636) 256 - 7202	
E-mail address: jmarkwardt@trinityconsultants.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
Commercial Bakery	Bread, buns, rolls	311812	2051

Provide a general description of operations.

Bimbo Bakeries USA, Inc. operates a commercial bread baking facility using flour, water, yeast, salt and other additive ingredients to manufacture bread, buns and rolls. The principal pollutant emitted from bread baking is VOC, emitted from the baking ovens as a result of yeast fermentation (of process sugars) and forming ethanol, carbon dioxide and other by-products. The baking ovens fire natural gas, and therefore additionally emit criteria pollutants associated with combustion. Ancillary operations include pneumatic flour transfer to bulk storage silos, natural gas-fired boilers (steam heat), emergency generators, and bulk oil storage tanks.

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.	
☑ SIP	☐ FIP
☑ Minor source NSR (45CSR13)	☐ PSD (45CSR14)
☑ NESHAP (45CSR34)	☐ Nonattainment NSR (45CSR19)
☐ Section 111 NSPS	☑ Section 112(d) MACT standards
☐ Section 112(g) Case-by-case MACT	☐ 112(r) RMP
☐ Section 112(i) Early reduction of HAP	☐ Consumer/commercial prod. reqts., section 183(e)
☐ Section 129 Standards/Reqts.	☑ Stratospheric ozone (Title VI)
☐ Tank vessel reqt., section 183(f)	☑ Emissions cap 45CSR§30-2.6.1
☐ NAAQS, increments or visibility (temp. sources)	☐ 45CSR27 State enforceable only rule
☑ 45CSR4 State enforceable only rule	☐ Acid Rain (Title IV, 45CSR33)
☐ Emissions Trading and Banking (45CSR28)	☐ **C**ompliance **A**ssurance **M**onitoring (40CFR64)
☐ CAIR NO_x Annual Trading Program (45CSR39)	☐ CAIR NO_x Ozone Season Trading Program (45CSR40)
☐ 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. 45-1 – Facility does not have an alternative emission limitation during startup, shutdown or malfunction. 45-2A – Fuel burning units have capacities less than 10 MMBTU/hr 45-3 – Facility is not a "hot mix asphalt plant" 45-5 – Facility not involved in coal handling or preparation 45-6 – Facility not involved in the combustion of refuse 45-8 – Emissions of SOx/PM10 insignificant; facility not located in SOx/PM10 nonattainment area 45-10 – Ovens emit <500 lb/yr SOx (4.1.e); boilers <10 MMBtu/hr (10.1) 45-11 – Facility not located in region with Priority I or II pollutant as defined 45-14 – Facility VOC PTE less than 250 tpy (PSD) 45-16 and 40 CFR 60 NSPS – No applicable 40 CFR 60 NSPS 45-17 – Specifically not applicable where covered by 45-2 and 45-7
☑ 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.

45-18 – Facility not involved in solid waste incineration
45-19 – Facility is not located in a in a nonattainment area
45-20 – Permit emission limits not governed by stack heights. Stack heights are below level determined by good engineering practice.
45-22 – Management fees governed by 45-30 for Title V facility
45-23 – Facility not MSW landfill
45-25 – Facility not a TSD facility
45-26 – Emergency generators do not produce electricity for sale
45-27 – Facility does not have any sources that meet the category descriptions in the rule
45-33 – Facility not an acid rain source
40 CFR 64 – Units above the major source threshold not subject to control requirements
40 CFR 68 – No storage of listed substances above threshold criteria

☑ 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*).

45-4-3.1 (R13-2005D, Condition 3.1.4) – No objectionable odor to be caused by the discharge of air pollutants (state-enforceable only)
45-6-3.1 (R13-2005D, Condition 3.1.1) – Open burning prohibited
45-7-5.1, 45-7-5.2, 45-13 (R13-2005D, Condition 4.1.4) – Particulate matter control of plant premises and roadways
45-11-5.2 – Standby plan for reducing emissions
45-13-6.1, 45-7-8.1 – Future source testing when and where prescribed by WVDEP
45-21-40 – RACT emission limits and controls set in Permit R13-2005D (Condition 4.1.5)
45-29-4.1 – Annual emissions statement for certain sources (VOC>25 tpy, Cabell)
45-30 – TV Operating Permit requirements
45-30-8.7 – Certified Emissions Statement accounting for emissions of regulated pollutants
40 CFR 61 and 45CSR15 – Asbestos demolition or renovation
40 CFR 82 Subpart F – Stratospheric Ozone Protection (Recycling and Emission Reduction)

☑ 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.)

45-4-3.1 – Facility will investigate where notified by WVDEP according to 45-4-5.1
45-6-3.1 – Open burning not conducted
45-7-5.2 – Facility shall water loading areas as necessary to control fugitive dust
45-13-6.1, 45-7-8.1 – Facility will conduct future source testing where required by WVDEP
45-11-5.2 – Facility shall prepare a plan for reducing emissions if requested by WVDEP
45-21-40 – Facility shall comply with applicable permit requirements
45-29-4.1 – Emissions statements submitted as required
45-30 – Facility complies with requirements of the TV Operating Permit
45-30-8.7 – Certified Emissions Statements submitted as required
40 CFR 61 and 45CSR15 – If asbestos removal projects are undertaken, the requirements of Subpart M will be followed
40 CFR 82 Subpart F – Facility complies with Subpart F requirements for Class I and Class II substances

[illegible] ☑ [illegible] ☐ [illegible]

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.

☑ 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.)

[illegible] ☑ [illegible] ☐ [illegible]

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

21. Active Permits/Consent Orders		
Permit or Consent Order Number	Date of Issuance MM/DD/YYYY	List any Permit Determinations that Affect the Permit *(if any)*
R30-01100062-2015	11/23/2015	N/A
R13-2005D	01/27/2014	N/A

22. Inactive Permits/Obsolete Permit Conditions		
Permit Number	Date of Issuance	Permit Condition Number
N/A		

Section 3: Facility-Wide Emissions

23. Facility-Wide Emissions Summary [Tons per Year]	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	9.18
Nitrogen Oxides (NO_X)	11.38
Lead (Pb)	0.00
Particulate Matter ($PM_{2.5}$)[1]	8.64
Particulate Matter (PM_{10})[1]	8.64
Total Particulate Matter (TSP)	8.64
Sulfur Dioxide (SO_2)	0.08
Volatile Organic Compounds (VOC)	223.3
Hazardous Air Pollutants[2]	Potential Emissions
All HAPs Combined	0.21
Regulated Pollutants other than Criteria and HAP	Potential Emissions
Carbon Dioxide	13,192
Methane	0.25
Nitrous Oxide	0.24

[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)		
☑	1.	Air compressors and pneumatically operated equipment, including hand tools.
☑	2.	Air contaminant detectors or recorders, combustion controllers or shutoffs.
☑	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.
☑	4.	Bathroom/toilet vent emissions.
☑	5.	Batteries and battery charging stations, except at battery manufacturing plants.
☑	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.
☐	7.	Blacksmith forges.
☑	8.	Boiler water treatment operations, not including cooling towers.
☑	9.	Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
☐	10.	CO2 lasers, used only on metals and other materials which do not emit HAP in the process.
☑	11.	Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
☑	12.	Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
☑	13.	Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
☐	14.	Demineralized water tanks and demineralizer vents.
☐	15.	Drop hammers or hydraulic presses for forging or metalworking.
☐	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.
☐	17.	Emergency (backup) electrical generators at residential locations.
☐	18.	Emergency road flares.
☑	19.	Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, NO_x, SO_2, 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. Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis: Boilers – Calculations in Attachment I Solvent Parts Washer – Low-VOC solvent; SDS in Attachment J Water heaters <300 MBtu/hr – Calculations in Attachment I Water heater 3.0 MMBtu/hr – Calculations in Attachment I

24. Insignificant Activities (Check all that apply)		
☐	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. 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:
☐	21.	Environmental chambers not using hazardous air pollutant (HAP) gases.
☑	22.	Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.
☐	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.
☐	24.	Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
☐	25.	Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.
☑	26.	Fire suppression systems.
☐	27.	Firefighting equipment and the equipment used to train firefighters.
☐	28.	Flares used solely to indicate danger to the public.
☑	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.
☐	30.	Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.
☐	31.	Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.
☐	32.	Humidity chambers.
☐	33.	Hydraulic and hydrostatic testing equipment.
☐	34.	Indoor or outdoor kerosene heaters.
☐	35.	Internal combustion engines used for landscaping purposes.
☐	36.	Laser trimmers using dust collection to prevent fugitive emissions.
☐	37.	Laundry activities, except for dry-cleaning and steam boilers.
☐	38.	Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.
☐	39.	Oxygen scavenging (de-aeration) of water.
☐	40.	Ozone generators.

24. Insignificant Activities (Check all that apply)		
☑	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.)
☐	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.
☑	43.	Process water filtration systems and demineralizers.
☑	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.
☑	45.	Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.
☑	46.	Routing calibration and maintenance of laboratory equipment or other analytical instruments.
☐	47.	Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers.
☐	48.	Shock chambers.
☐	49.	Solar simulators.
☑	50.	Space heaters operating by direct heat transfer.
☐	51.	Steam cleaning operations.
☐	52.	Steam leaks.
☐	53.	Steam sterilizers.
☐	54.	Steam vents and safety relief valves.
☑	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.
☑	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.
☑	57.	Such other sources or activities as the Director may determine.
☐	58.	Tobacco smoking rooms and areas.
☐	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: Dean Jeffers	Title: Plant Manager

Responsible official's signature:

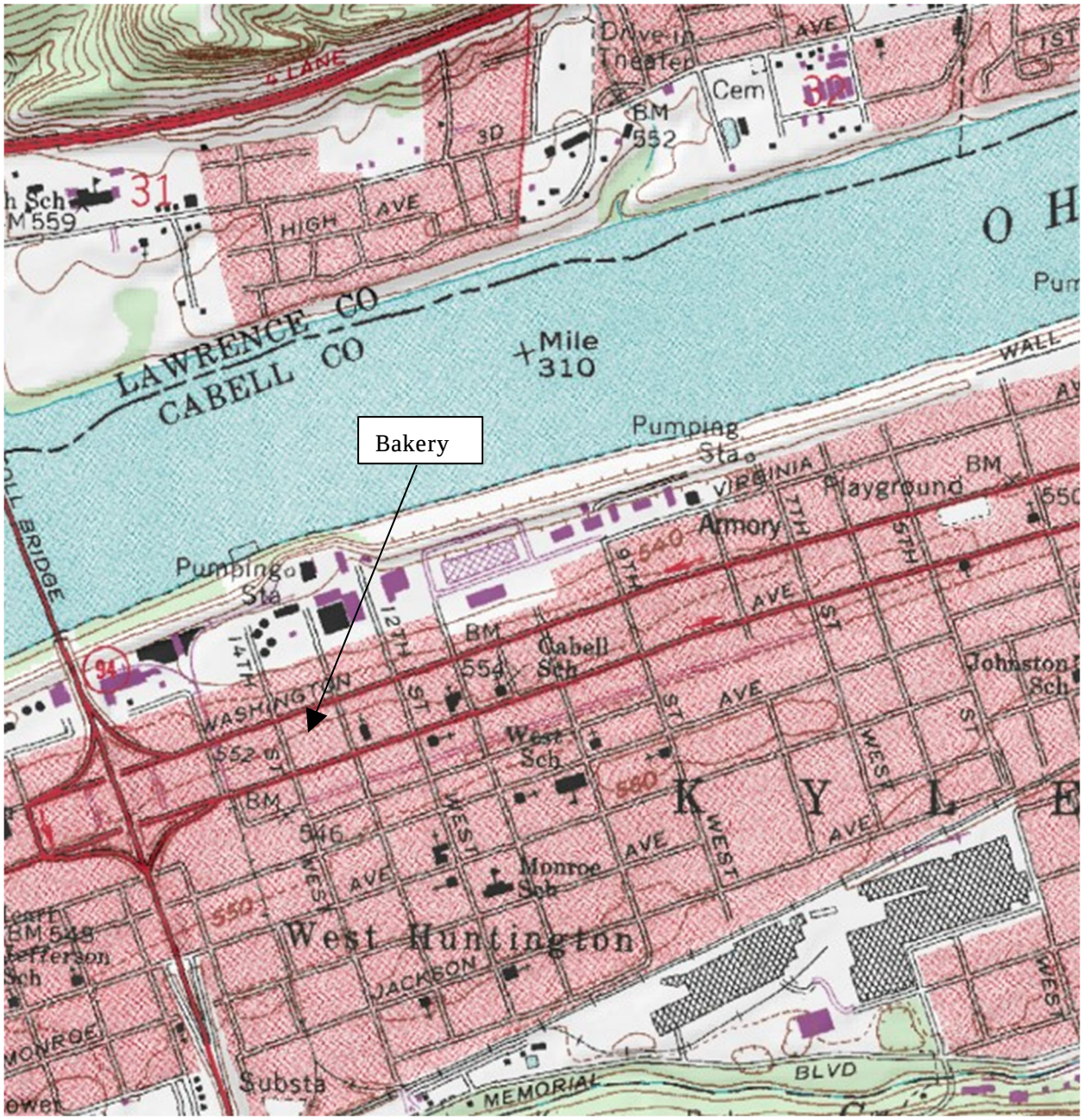
Signature: Dean A. Jeffers Signature Date: 5-18-20

(Must be signed and dated in blue ink)

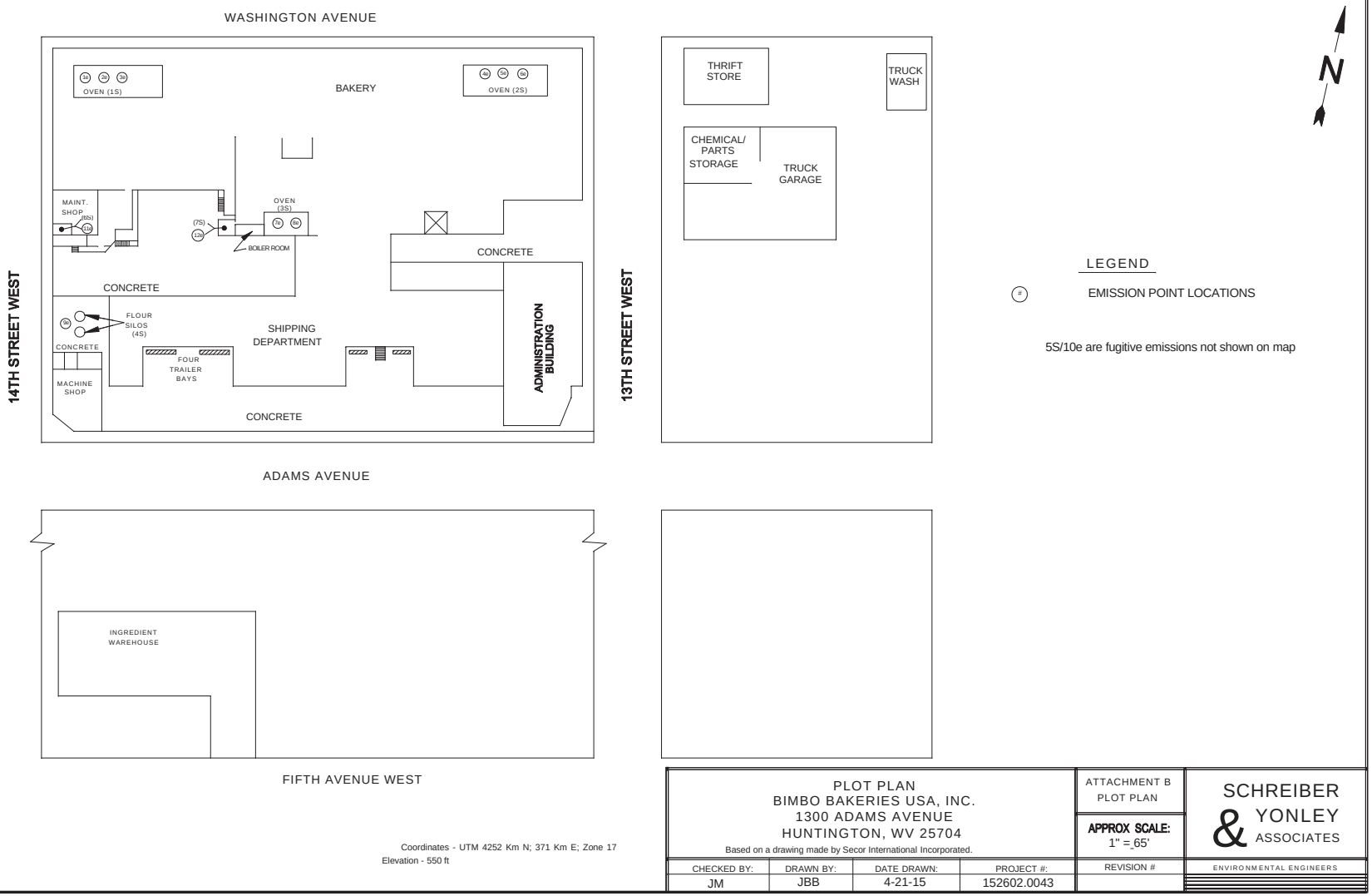
Note: Please check all applicable attachments included with this permit application:	
☑	ATTACHMENT A: Area Map
☑	ATTACHMENT B: Plot Plan(s)
☑	ATTACHMENT C: Process Flow Diagram(s)
☑	ATTACHMENT D: Equipment Table
☑	ATTACHMENT E: Emission Unit Form(s)
☐	ATTACHMENT F: Schedule of Compliance Form(s)
☑	ATTACHMENT 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/daq, requested by phone (304) 926-0475, and/or obtained through the mail.

Attachment Figure A-1. Area Map



ATTACHMENT B: PLOT PLAN



Coordinates - UTM 4252 Km N; 371 Km E; Zone 17
Elevation - 550 ft

PLOT PLAN
BIMBO BAKERIES USA, INC.
1300 ADAMS AVENUE
HUNTINGTON, WV 25704
Based on a drawing made by Secor International Incorporated.

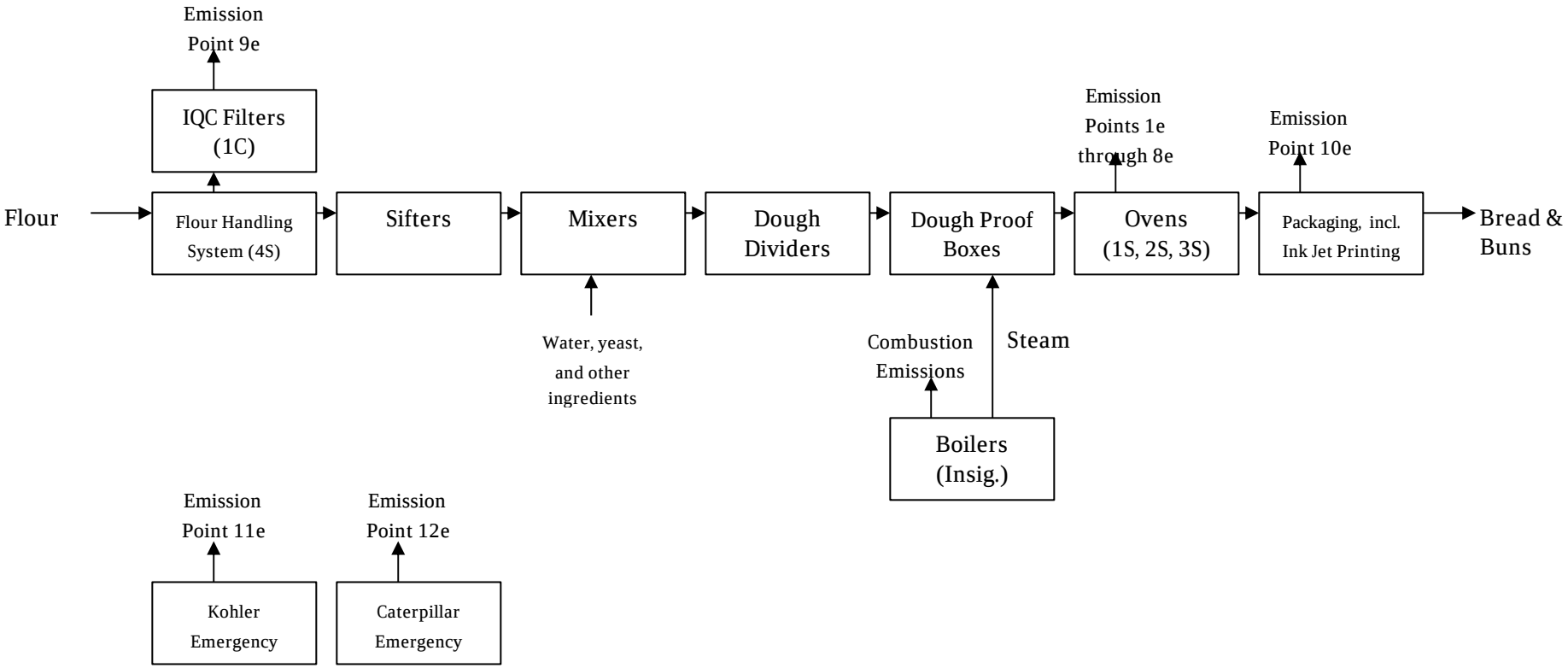
ATTACHMENT B
PLOT PLAN

APPROX SCALE:
1" =_65'

SCHREIBER & YONLEY ASSOCIATES
ENVIRONMENTAL ENGINEERS

CHECKED BY:	DRAWN BY:	DATE DRAWN:	PROJECT #:	REVISION #
JM	JBB	4-21-15	152602.0043	

Attachment Figure C-1. Process Flow Diagram



ATTACHMENT D: 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)

Emission Point ID[1]	Control Device[1]	Emission Unit ID[1]	Emission Unit Description	Design Capacity	Year Installed/ Modified
1E	N/A	1S	58 Tray Baker Perkins 970 Oven	5.94 MMBtu/hr 15,000 lb/hr	1992/ 2001
2E	N/A	1S	58 Tray Baker Perkins 970 Oven	5.94 MMBtu/hr 15,000 lb/hr	1992/ 2001
3E	N/A	1S	58 Tray Baker Perkins 970 Oven	5.94 MMBtu/hr 15,000 lb/hr	1992/ 2001
4E	N/A	2S	28 Tray Teledyne Readco Oven	5.39 MMBtu/hr 7,200 lb/hr	1974
5E	N/A	2S	28 Tray Teledyne Readco Oven	5.39 MMBtu/hr 7,200 lb/hr	1974
6E	N/A	2S	28 Tray Teledyne Readco Oven	5.39 MMBtu/hr 7,200 lb/hr	1974
7E	N/A	3S	18 Tray Baker Perkins 970 Oven	1.98 MMBtu/hr 4,255 lb/hr	2001
8E	N/A	3S	18 Tray Baker Perkins 970 Oven	1.98 MMBtu/hr 4,255 lb/hr	2001
9E	1C	4S	Flour Handling System	39,000 tpy	2011
10E	N/A	5S	Ink Jet Printing	N/A	N/A
11E	N/A	6S	Kohler Emergency Generator	350 kW	1991
12E	N/A	7S	Caterpillar Emergency Generator	260 kW	Mid 1970s
N/A	N/A	N/A	Solvent Parts Washer	N/A	N/A

[1]For 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:	**Emission unit name:**	**List any control devices associated with this emission unit:**
1S	58 Tray Direct Fired Baker Perkins 970 Oven	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Natural gas, direct fired, bread baking oven

Manufacturer:	**Model number:**	**Serial number:**
Baker Perkins	970	N/A

Construction date:	**Installation date:**	**Modification date(s):**
1991	1991	2001

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
15,000 lb/hr (baked goods)

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
15,000 lb/hr (baked goods)	65,700 tpy (limited to 39,000 tpy)	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_Yes ___ No	**If yes, is it?** ___ Indirect Fired _X_Direct Fired
Maximum design heat input and/or maximum horsepower rating: 5.940 MM Btu/hr	**Type and Btu/hr rating of burners:** Ribbon type 105 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.
Natural gas – 0.005940 MMCF/hr, 52.03 MMCF/yr (limited to 52 MMCF/yr)

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	<1%	Negligible	1,000 Btu/scf

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.50	2.19
Nitrogen Oxides (NO_X)	0.59	2.60
Lead (Pb)	3.0E-06	1.3E-05
Particulate Matter ($PM_{2.5}$)	0.045	0.20
Particulate Matter (PM_{10})	0.045	0.20
Total Particulate Matter (TSP)	0.045	0.20
Sulfur Dioxide (SO_2)	0.004	0.02
Volatile Organic Compounds (VOC)	45.8	119.1
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
All HAPs	1.12E-02	0.0492
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)	713	3,122
Methane (CH_4)	0.014	0.060
Nitrous Oxide (N_2O)	0.013	0.057

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.).

Source Testing of June 27, 29 and 30, 1994
Source Testing of November 16 and 17, 1994
Source Testing of May 17 and 18, 1995
AP-42, Section 1.4 (July 1998)

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.

45-7-4.12 – Stack flow requirements
45-7-5.1, 45-13 (R13-2005D, Condition 4.1.4) – Fugitive particulate matter limit from manufacturing process
45-13 (R13-2005D, Condition 4.1.2) – Maximum emissions for criteria pollutants (except SO_2)
45-13 (R13-2005D, Condition 4.1.1) – Maximum production rates
45-13 (R13-2005D, Condition 4.1.3) – Maximum natural gas combustion rates

__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.)

45-7-4.12 – Stacks conform to applicable requirements
45-7-5.1, 45-13 (R13-2005D, Condition 4.1.4) – Oven fires only natural gas
45-13 (R13-2005D, Condition 4.1.2) – Emissions less than allowable
45-13 (R13-2005D, Condition 4.1.1) – Monthly production records (R13-2005D, Condition 4.4.4)
45-13 (R13-2005D, Condition 4.1.3) – Monthly natural gas combustion records (R13-2005D, Condition 4.4.5)

Are you in compliance with all applicable requirements for this emission unit? _X_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:	**Emission unit name:**	**List any control devices associated with this emission unit:**
2S	38 Tray Direct Fired Teledyne Readco Oven	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Natural gas, direct fired, bread baking oven

Manufacturer:	**Model number:**	**Serial number:**
Teledyne Readco	N/A	N/A

Construction date:	**Installation date:**	**Modification date(s):**
1974	1974	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
7,200 lb/hr (baked goods)

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
7,200 lb/hr (baked goods)	31,536 tpy (limited to 18,720 tpy)	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_Yes ___ No	**If yes, is it?** ___ Indirect Fired _X_Direct Fired
Maximum design heat input and/or maximum horsepower rating: 5.390 MM Btu/hr	**Type and Btu/hr rating of burners:** Ribbon type 76 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.
Natural gas – 0.005390 MMCF/hr, 47.22 MMCF/yr (limited to 39.5 MMCF/yr)

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	<1%	Negligible	1,000 Btu/scf

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.45	1.66
Nitrogen Oxides (NO_X)	0.54	1.98
Lead (Pb)	2.7E-06	9.9E-06
Particulate Matter ($PM_{2.5}$)	0.041	0.15
Particulate Matter (PM_{10})	0.041	0.15
Total Particulate Matter (TSP)	0.041	0.15
Sulfur Dioxide (SO_2)	0.003	0.01
Volatile Organic Compounds (VOC)	24.7	64.3
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
All HAPs	1.02E-02	0.0373
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)	647	2,370
Methane (CH_4)	0.012	0.045
Nitrous Oxide (N_2O)	0.012	0.043

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.).

Source Testing of June 27, 29 and 30, 1994
Source Testing of November 16 and 17, 1994
Source Testing of May 17 and 18, 1995
AP-42, Section 1.4 (July 1998)

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.

45-7-4.12 – Stack flow requirements
45-7-5.1, 45-13 (R13-2005D, Condition 4.1.4) – Fugitive particulate matter limit from manufacturing process
45-13 (R13-2005D, Condition 4.1.2) – Maximum emissions for criteria pollutants (except SO_2)
45-13 (R13-2005D, Condition 4.1.1) – Maximum production rates
45-13 (R13-2005D, Condition 4.1.3) – Maximum natural gas combustion rates

__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.)

45-7-4.12 – Stacks conform to applicable requirements
45-7-5.1, 45-13 (R13-2005D, Condition 4.1.4) – Oven fires only natural gas
45-13 (R13-2005D, Condition 4.1.2) – Emissions less than allowable
45-13 (R13-2005D, Condition 4.1.1) – Monthly production records (R13-2005D, Condition 4.4.4)
45-13 (R13-2005D, Condition 4.1.3) – Monthly natural gas combustion records (R13-2005D, Condition 4.4.5)

Are you in compliance with all applicable requirements for this emission unit? _X_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:	**Emission unit name:**	**List any control devices associated with this emission unit:**
3S	18 Tray Single Lap Direct Fired Baker Perkins 970 Oven	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Natural gas, direct fired, bread baking oven

Manufacturer:	**Model number:**	**Serial number:**
Baker Perkins	970	N/A
Construction date:	**Installation date:**	**Modification date(s):**
2001	2001	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
4,255 lb/hr (baked goods)

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
4,255 lb/hr (baked goods)	18,640 tpy (limited to 11,000 tpy)	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_Yes ___ No	**If yes, is it?** ___ Indirect Fired _X_Direct Fired
Maximum design heat input and/or maximum horsepower rating: 1.980 MM Btu/hr	**Type and Btu/hr rating of burners:** Ribbon type 18 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.
Natural gas – 0.001980 MMCF/hr, 17.34 MMCF/yr (limited to 17.3 MMCF/yr)

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	<1%	Negligible	1,000 Btu/scf

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.17	0.73
Nitrogen Oxides (NO_X)	0.20	0.87
Lead (Pb)	9.9E-07	4.3E-06
Particulate Matter ($PM_{2.5}$)	0.015	0.07
Particulate Matter (PM_{10})	0.015	0.07
Total Particulate Matter (TSP)	0.015	0.07
Sulfur Dioxide (SO_2)	0.001	0.01
Volatile Organic Compounds (VOC)	14.6	37.8
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
All HAPs	3.74E-03	0.0163
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)	238	1,038
Methane (CH_4)	0.0046	0.020
Nitrous Oxide (N_2O)	0.0044	0.019

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.).

Source Testing of June 27, 29 and 30, 1994
Source Testing of November 16 and 17, 1994
Source Testing of May 17 and 18, 1995
AP-42, Section 1.4 (July 1998)

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.

45-7-4.12 – Stack flow requirements
45-7-5.1, 45-13 (R13-2005D, Condition 4.1.4) – Fugitive particulate matter limit from manufacturing process
45-13 (R13-2005D, Condition 4.1.2) – Maximum emissions for criteria pollutants (except SO_2)
45-13 (R13-2005D, Condition 4.1.1) – Maximum production rates
45-13 (R13-2005D, Condition 4.1.3) – Maximum natural gas combustion rates

__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.)

45-7-4.12 – Stacks conform to applicable requirements
45-7-5.1, 45-13 (R13-2005D, Condition 4.1.4) – Oven fires only natural gas
45-13 (R13-2005D, Condition 4.1.2) – Emissions less than allowable
45-13 (R13-2005D, Condition 4.1.1) – Monthly production records (R13-2005D, Condition 4.4.4)
45-13 (R13-2005D, Condition 4.1.3) – Monthly natural gas combustion records (R13-2005D, Condition 4.4.5)

Are you in compliance with all applicable requirements for this emission unit? _X_ 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:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4S	Flour Handling System	1C

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Pneumatic transfer (rail, truck) to bulk silos (2) for storage prior to delivery to bread and bun baking processes.

Manufacturer:	**Model number:**	**Serial number:**
CST (Silos)	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
11/2011	11/2011	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
Approximately 7.5 tons/hr (flour) to the mixers; 15 tons/hr input from delivery trucks and railcars

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
15 tons/hr input to the silos; 16.5 tons/hr (550 lb/min) into the facility	65,700 tons (limited to 39,000 tons by production limits on ovens)	8,760 hours/year

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A			

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 ($PM_{2.5}$)	0.878	1.04
Particulate Matter (PM_{10})	6.6	7.8
Total Particulate Matter (TSP)	6.6	7.8
Sulfur Dioxide (SO_2)	N/A	N/A
Volatile Organic Compounds (VOC)	N/A	N/A
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
All HAPs	N/A	N/A
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)	N/A	N/A
Methane (CH_4)	N/A	N/A
Nitrous Oxide (N_2O)	N/A	N/A

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.).

$PM_{2.5}$, PM_{10} and TSP – from Frank Haile and Associates, a supplier of fabric filters, supplemented by AP-42, Appendix B.2, "General Particulate Size Distribution"

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.

45-7-3.7 – Visible emissions from storage structures (materials handling)
45-7-5.1, 45-13 (R13-2005D, Condition 4.1.4) – System required to minimize fugitive particulate from storage/materials handling

_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.)

45-7-3.7 – Facility maintains bulk silos dust collector according to manufacturer specifications
45-7-5.1, 45-13 (R13-2005D, Condition 4.1.4) – Facility maintains bulk silos dust collector according to manufacturer specifications

Are you in compliance with all applicable requirements for this emission unit? _X_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:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
5S	Ink Jet Printing	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Ink jet printing of packaged baked goods

Manufacturer:	**Model number:**	**Serial number:**
Construction date:	**Installation date:**	**Modification date(s):**

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
Maximum usage is 0.01 gallons ink/hour and 0.05 gallons make-up fluid/hour.

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
0.06 gallons	526 gallons	8,760 hours/year

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A			

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)	0.42	1.82
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
All HAPs	N/A	N/A
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)	N/A	N/A
Methane (CH_4)	N/A	N/A
Nitrous Oxide (N_2O)	N/A	N/A

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.).

Material/mass balance

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.

N/A

_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.)

N/A

Are you in compliance with all applicable requirements for this emission unit? _X_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:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
6S	Kohler Emergency Generator	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Diesel-fired emergency generator

Manufacturer:	**Model number:** 571RSL7024BF-W	**Serial number:**
Kohler		WM 3747740
Construction date:	**Installation date:**	**Modification date(s):**
1991	1991	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
350 kW

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1.19 MMBtu/hr	595 MMBtu (based on maximum operating schedule)	500 hours/year (9/6/1995 EPA Memo)

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_Yes ___ No	**If yes, is it?** ___ Indirect Fired _X_Direct Fired
Maximum design heat input and/or maximum horsepower rating: 350 kW	**Type and Btu/hr rating of burners:** N/A

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.
Diesel – 8.56 gallons/hour; 4,280 gallons/year

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Diesel	0.05%	0.01%	139,000 Btu/gal

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	3.9E-03	9.8E-04
Nitrogen Oxides (NO_X)	1.0	0.26
Lead (Pb)	1.7E-05	4.2E-06
Particulate Matter ($PM_{2.5}$)	1.4E-02	3.6E-03
Particulate Matter (PM_{10})	1.4E-02	3.6E-03
Total Particulate Matter (TSP)	1.4E-02	3.6E-03
Sulfur Dioxide (SO_2)	3.9E-02	9.8E-03
Volatile Organic Compounds (VOC)	4.9E-04	1.2E-04
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
All HAPs	1.54E-03	3.84E-04
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)	187	46.7
Methane (CH_4)	7.9E-03	2.0E-03
Nitrous Oxide (N_2O)	1.5E-04	3.9E-05

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.).

AP-42, Section 3.1 (April 2000)
40 CFR 98, Table C-2

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.

40 CFR 63, Subpart ZZZZ (NESHAP for Stationary Reciprocating Internal Combustion Engines) and 45CSR34 – Operational standards including:

- Change oil and filter every 500 hours of operation or annually, whichever comes first [§63.6603(a); Table 2d, Item 4]
- Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first [§63.6603(a); Table 2d, Item 4]
- Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary [§63.6603(a); Table 2d, Item 4]
- Operate and maintain unit in a manner consistent with safety and good air pollution practices for minimizing emissions [§63.6605(b)]
- Limitations on hours of operation for non-emergency use [§63.6640(f)]
- Operate and maintain per manufacturer's recommendation or develop a maintenance plan [§63.6625(e)]
- Install a non-resettable hour meter [§63.6625(f)]
- Minimize engine start-up time to 30 minutes [§63.6625(h)]

__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.)

40 CFR 63, Subpart ZZZZ and 45CSR34 – Monitoring/testing/recordkeeping/reporting requirements to ensure compliance with the rule are as follows:

- Keep operating limitation records [§63.6655(a)(1), (2), (4) and (5)]
- Keep records of maintenance conducted in order to demonstrate that the engine was maintained according to the maintenance plan [§63.6655(d)]
- Keep records of the hours of operation of the engine [§63.6655(f)]
- Report each instance when the engine did not meet each operating limitation in Table 2d [§63.6640(b)]

Are you in compliance with all applicable requirements for this emission unit? _X_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:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
7S	Caterpillar Emergency Generator	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Diesel-fired emergency generator

Manufacturer:	**Model number:**	**Serial number:**
Caterpillar	SR-4	48BH3203

Construction date:	**Installation date:**	**Modification date(s):**
Mid 1970s	Mid 1970s	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
260 kW

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
0.887 MMBtu/hr	444 MMBtu (based on maximum operating schedule)	500 hours/year (9/6/1995 EPA Memo)

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_Yes ___ No	**If yes, is it?** ___ Indirect Fired _X_Direct Fired
Maximum design heat input and/or maximum horsepower rating: 260 kW	**Type and Btu/hr rating of burners:** N/A

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.
Diesel – 6.38 gallons/hour; 3,190 gallons/year

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Diesel	0.05%	0.01%	139,000 Btu/gal

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	2.9E-03	7.3E-04
Nitrogen Oxides (NO_X)	0.78	0.20
Lead (Pb)	1.2E-05	3.1E-06
Particulate Matter ($PM_{2.5}$)	1.1E-02	2.7E-03
Particulate Matter (PM_{10})	1.1E-02	2.7E-03
Total Particulate Matter (TSP)	1.1E-02	2.7E-03
Sulfur Dioxide (SO_2)	2.9E-02	7.3E-03
Volatile Organic Compounds (VOC)	3.6E-04	9.1E-05
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
All HAPs	1.14E-03	2.86E-04
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
Carbon Dioxide (CO_2)	139	34.8
Methane (CH_4)	5.9E-03	1.5E-03
Nitrous Oxide (N_2O)	1.2E-04	2.9E-05

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.).

AP-42, Section 3.1 (April 2000)
40 CFR 98, Table C-2

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.

40 CFR 63, Subpart ZZZZ (NESHAP for Stationary Reciprocating Internal Combustion Engines) and 45CSR34 – Operational standards including:

- Change oil and filter every 500 hours of operation or annually, whichever comes first [§63.6603(a); Table 2d, Item 4]
- Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first [§63.6603(a); Table 2d, Item 4]
- Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary [§63.6603(a); Table 2d, Item 4]
- Operate and maintain unit in a manner consistent with safety and good air pollution practices for minimizing emissions [§63.6605(b)]
- Limitations on hours of operation for non-emergency use [§63.6640(f)]
- Operate and maintain per manufacturer's recommendation or develop a maintenance plan [§63.6625(e)]
- Install a non-resettable hour meter [§63.6625(f)]
- Minimize engine start-up time to 30 minutes [§63.6625(h)]

__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.)

40 CFR 63, Subpart ZZZZ and 45CSR34 – Monitoring/testing/recordkeeping/reporting requirements to ensure compliance with the rule are as follows:

- Keep operating limitation records [§63.6655(a)(1), (2), (4) and (5)]
- Keep records of maintenance conducted in order to demonstrate that the engine was maintained according to the maintenance plan [§63.6655(d)]
- Keep records of the hours of operation of the engine [§63.6655(f)]
- Report each instance when the engine did not meet each operating limitation in Table 2d [§63.6640(b)]

Are you in compliance with all applicable requirements for this emission unit? _X_Yes ___No

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

ATTACHMENT F: SCHEDULE OF COMPLIANCE FORMS (NOT APPLICABLE)

ATTACHMENT G: AIR POLLUTION CONTROL DEVICE FORM

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 1C	**List all emission units associated with this control device.** 4S – Flour Handling System	
Manufacturer: Schick Tube-Veyor Corporation	**Model number:** ICY-8-1000	**Installation date:** 11/2011

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ 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
$PM_{2.5}$	99.9% (estimated)	>99.98% (manufacturer)
PM_{10}	99.9% (estimated)	>99.98% (manufacturer)
TSP	99.9% (estimated)	>99.98% (manufacturer)

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).
Pneumatic transfer to bulk storage silos (2); insertable quick change (IQC) high efficiency filters:

794 cfm; 6 elements; 79.44 square feet filter area; spun bonded polyester with ePTFE membrane; replaceable and cleanable filters; exhaust temperature approximately 10 degrees F above ambient

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

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.**
The flour handling system utilizes a control device, but is not a major source of emissions, nor is it subject to a pollutant-specific emission limitation.

Describe the parameters monitored and/or methods used to indicate performance of this control device.
Pressure drop observation and routine inspection conducted periodically (monthly at a minimum); filters cleaned or replaced as necessary; ongoing general site surveillance to proactively note any indication of visible emissions; equipment maintained according to manufacturer specifications

ATTACHMENT H: COMPLIANCE ASSURANCE MONITORING (CAM) 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
EXAMPLE 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:	**4b) Pollutant:**	**4c) [a] Indicator No. 1:**	**4d) [a] Indicator No. 2:**
5a) GENERAL CRITERIA Describe the MONITORING APPROACH used to measure the indicators:			
[b] Establish the appropriate INDICATOR RANGE or the procedures for establishing the indicator range which provides a reasonable assurance of compliance:			
5b) PERFORMANCE CRITERIA Provide the SPECIFICATIONS FOR OBTAINING REPRESENTATIVE DATA, such as detector location, installation specifications, and minimum acceptable accuracy:			
[c] For new or modified monitoring equipment, provide VERIFICATION PROCEDURES, including manufacturer's recommendations, TO CONFIRM THE OPERATIONAL STATUS of the monitoring:			
Provide QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC) PRACTICES that are adequate to ensure the continuing validity of the data, (i.e., daily calibrations, visual inspections, routine maintenance, RATA, etc.):			
[d] Provide the MONITORING FREQUENCY:			
Provide the DATA COLLECTION PROCEDURES that will be used:			
Provide the DATA AVERAGING PERIOD for the purpose of determining whether an excursion or exceedance has occurred:			

[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:	6b) Regulated Air Pollutant:

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):

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:

ATTACHMENT I: EMISSIONS CALCULATIONS

Attachment Table I-1: Potential VOC Emissions from Fermentation for Each Emission Unit

Emission Unit	VOC Emission Factor (lb VOC/ton product)[1]	Maximum Throughput (lb/hr)	Limited Throughput (ton/yr)[2]	Potential VOC Emissions (lb/hr)	Potential VOC Emissions (ton/yr)
BP Bread Oven (1S)	6.106	15,000	39,000	45.8	119.1
TR Bun Oven (2S)	6.874	7,200	18,720	24.7	64.3
BP Bun Oven (3S)	6.874	4,255	11,000	14.6	37.8

[1]VOC emission factors are from stack tests performed in 1994 and 1995.

[2]Limited throughput is from permit R13-2005D.

Attachment Table I-2: Maximum Design Rate for Each Bakery Oven and Boiler

Emission Unit	Maximum Design Heat Input Rating (MMBtu/hr)	Maximum Natural Gas Design Rate (MMcf/hr)[1]	Limited Gas Usage Rate (MMcf/yr)[2]
BP Bread Oven (1S)	5.94	5.94E-03	52.0
TR Bun Oven (2S)	5.39	5.39E-03	39.5
BP Bun Oven (3S)	1.98	1.98E-03	17.3
Boiler No. 1	5.02	5.02E-03	N/A
Boiler No. 2	4.20	4.20E-03	N/A
Water Heaters	0.30	3.00E-04	N/A
Water Heater	3.00	3.00E-03	N/A

[1]Based on 1,000 Btu/cf and maximum design heat input rating.

[2]Limited throughput is from permit R13-2005D.

Attachment Table I-3: Summary of Combustion Emissions from Natural Gas

Emission Unit		BP Bread Oven (1S)	TR Bun Oven (2S)	BP Bun Oven (3S)	Boiler No. 1	Boiler No. 2	Water Heaters	Water Heater
Annual Natural Gas Usage (MMcf/yr)[1]		52.0	39.5	17.3	44.0	36.8	2.6	26.3
Pollutant	**Emission Factor (lb/MMcf)[2]**	**Potential Emissions (ton/yr)**						
PM	7.6	0.20	0.15	0.07	0.17	0.14	0.01	0.10
NOx	100	2.60	1.98	0.87	2.20	1.84	0.13	1.31
SO_2	0.6	0.02	0.01	0.01	0.01	0.01	0.00	0.01
CO	84	2.19	1.66	0.73	1.85	1.55	0.11	1.10
VOC[3]	5.5	-	-	-	0.12	0.10	0.01	0.07
Lead	5.0E-04	1.3E-05	9.9E-06	4.3E-06	1.1E-05	9.2E-06	6.6E-07	6.6E-06
All HAPs[4]	1.89	0.0492	0.0373	0.0163	0.0416	0.0348	0.0025	0.0248
CO_2	120,000	3,122	2,370	1,038	2,639	2,208	158	1,577
CH_4	2.3	0.060	0.045	0.020	0.051	0.042	0.003	0.030
N_2O	2.2	0.057	0.043	0.019	0.048	0.040	0.003	0.029
Maximum Natural Gas Design Rate (MMcf/hr)[5]		5.94E-03	5.39E-03	1.98E-03	5.02E-03	4.20E-03	3.00E-04	3.00E-03
Pollutant	**Emission Factor (lb/MMcf)[2]**	**Potential Emissions (lb/hr)**						
PM	7.6	0.045	0.041	0.015	0.038	0.032	0.0023	0.023
NOx	100	0.594	0.539	0.198	0.502	0.420	0.030	0.300
SO_2	0.6	3.6E-03	3.2E-03	1.2E-03	3.0E-03	2.5E-03	1.8E-04	1.8E-03
CO	84	0.50	0.45	0.17	0.42	0.35	0.025	0.25
VOC[3]	5.5	-	-	-	0.028	0.023	0.0017	0.017
Lead	0.0005	3.0E-06	2.7E-06	9.9E-07	2.5E-06	2.1E-06	1.5E-07	1.5E-06
All HAPs[4]	1.89	1.12E-02	1.02E-02	3.74E-03	9.49E-03	7.94E-03	5.67E-04	5.67E-03
CO_2	120,000	713	647	238	602	504	36	360
CH_4	2.3	0.014	0.012	0.0046	0.012	0.010	0.00069	0.0069
N_2O	2.2	0.013	0.012	0.0044	0.011	0.0092	0.00066	0.0066

[1]From Attachment Table I-2; for emission units without limits, the maximum hourly design rate was multiplied by 8,760 hr/yr.

[2]Emission factors from AP-42 Section 1.4.

[3]Bread Oven VOC emissions are included in the stack test results from Attachment Table I-1.

[4]Sum of all HAPs listed in Tables 1.4-3 and 1.4-4 of AP-42.

[5]From Attachment Table I-2.

Attachment Table I-4: Maximum Design Rate for Each Emergency Generator

Emission Unit	Maximum Input Rating (kW)	Maximum Design Heat Input Rating (MMBtu/hr)[1]	Maximum Diesel Design Rate (gal/hr)[2]
Kohler (6S)	350	1.19	8.56
Caterpillar (7S)	260	0.89	6.38

[1]3,413 Btu/kW-hr

[2]Based on AP-42 heating value of diesel from Section 3.1, Table 3.1-1 (139,000 Btu/gal).

Attachment Table I-5: Summary of Combustion Emissions from Diesel

Generator		Kohler (6S)	Caterpillar (7S)	Kohler (6S)	Caterpillar (7S)
Maximum Design Heat Input Rating (MMBtu/hr)		1.19	0.89	1.19	0.89
Pollutant	**Emission Factor (lb/MMBtu)[1]**	**Potential Emissions (lb/hr)**		**Potential Emissions (ton/yr)[5]**	
PM	1.2E-02	1.4E-02	1.1E-02	3.6E-03	2.7E-03
NOx	0.88	1.0	0.78	0.26	0.20
SO_2[2]	3.3E-02	3.9E-02	2.9E-02	9.8E-03	7.3E-03
CO	3.3E-03	3.9E-03	2.9E-03	9.8E-04	7.3E-04
VOC	4.1E-04	4.9E-04	3.6E-04	1.2E-04	9.1E-05
Lead	1.4E-05	1.7E-05	1.2E-05	4.2E-06	3.1E-06
All HAPs[3]	1.29E-03	1.54E-03	1.14E-03	3.84E-04	2.86E-04
CO_2	157	187	139	46.7	34.8
CH_4[4]	6.6E-03	7.9E-03	5.9E-03	2.0E-03	1.5E-03
N_2O[4]	1.3E-04	1.5E-04	1.2E-04	3.9E-05	2.9E-05

[1]Emission Factors From AP-42 Section 3.1.

[2]1.01S or 0.033 for diesel-fired units.

[3]Sum of all HAPs listed in Tables 3.1-4 and 3.1-5 of AP-42.

[4]AP-42 does not include emissions information for CH_4 or N_2O; emission factors from 40 CFR 98, Table C-2 for petroleum product combustion were used (3.0×10^{-3} kg CH_4/MMBtu and 6.0×10^{-4} kg N_2O/MMBtu).

[5]Based on 500 emergency generator operating hours (September 6, 1995 memo from John S. Seitz regarding "Calculating Potential to Emit (PTE) for Emergency Generators").

Attachment Table I-6: Particulate Emissions from Flour Handling System (4S)

Pollutant	Emission Factor (lb/ton flour loaded or transferred)[1]	Number of transfer points	Facility Emission Factor (lb/ton flour)	Flour Usage (lb/min)	Limited Flour Usage (ton/yr)	Potential Emissions (lb/hr)	Potential Emissions (ton/yr)
PM_{10}	2.0E-02	20	0.40	550	39,000	6.6	7.8
$PM_{2.5}$[2]	2.66E-03	20	0.0532	550	39,000	0.878	1.04

[1]Emission factor provided by Frank Haile and Associates, a supplier of fabric filter bags.

[2]Historical particle size distribution for $PM_{2.5}$ determined using AP-42 Appendix B.2 (prior to 2009).

Attachment Table I-7: VOC Emissions from Ink Jet Printing (5S)

Product	Maximum Usage (gal/hr)[1]	Density (lb/ gal)[2]	VOC Content (%)[2]	Potential VOC Emissions (lb/hr)	Potential VOC Emissions (ton/yr)[3]
Ink (FB660)	0.01	7.89	82.76	0.065	0.28
Solvent (5661)	0.05	7.01	99.26	0.35	1.53
			Total:	0.42	1.82

[1]Estimate of maximum potential usage based on historical usage.

[2]Based on Markem-Imaje SDS provided in Attachment J; inks and solvents currently in use at the facility do not contain HAPs.

[3]Assumes that no ink or solvent is collected and disposed (conservative).

Attachment Table I-8: Summary of Potential Annual Emissions

Emission Unit	Description of Emission Unit	Potential Emissions (ton/yr)									
		PM_{10}	NOx	SO_2	CO	VOC	All HAPs	CO_2	CH_4	N_2O	GHG Total (CO_2e)
1S	BP Bread Oven	0.20	2.60	0.02	2.19	119.1	4.92E-02	3,122	0.06	0.06	3,141
2S	TR Bun Oven	0.15	1.98	0.01	1.66	64.3	3.73E-02	2,370	0.05	0.04	2,384
3S	BP Bun Oven	0.07	0.87	0.01	0.73	37.8	1.63E-02	1,038	0.02	0.02	1,044
4S	Flour Handling System	7.8	--	--	--	--	--	--	--	--	--
5S	Ink Jet Printing	--	--	--	--	1.82	--	--	--	--	--
6S	Kohler Emergency Generator	3.6E-03	2.6E-01	9.8E-03	9.8E-04	1.2E-04	3.84E-04	46.7	2.0E-03	3.9E-05	46.8
7S	Caterpillar Emergency Generator	2.7E-03	2.0E-01	7.3E-03	7.3E-04	9.1E-05	2.86E-04	34.8	1.5E-03	2.9E-05	34.9
N/A	Solvent Parts Washer	--	--	--	--	0	--	--	--	--	--
Insig.	Boiler No. 1	0.17	2.20	0.01	1.8	0.12	4.16E-02	2,639	0.05	0.05	2,654
Insig.	Boiler No. 2	0.14	1.84	0.01	1.5	0.10	3.48E-02	2,208	0.04	0.04	2,221
Insig.	Water Heaters	0.010	0.131	0.001	0.11	0.007	2.48E-03	158	0.003	0.003	159
Insig.	Water Heater	0.10	1.31	0.008	1.1	0.072	2.5E-02	1,577	0.03	0.03	1,586
	Total:	**8.64**	**11.38**	**0.08**	**9.18**	**223.3**	**0.21**	**13,192**	**0.25**	**0.24**	**13,270**

ATTACHMENT J: SAFETY DATA SHEETS (SDS)

Material Safety Data Sheet

Issuing Date 14-Apr-2014 **Revision Date** 04-Sep-2014 **Revision Number** 4

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name **5135E**

Product Code(s) **5135E**

Recommended Use Printing ink

Supplier Address
Markem-Imaje
150 Congress St. PO Box 2100
Keene, NH 03431
(603) 352-1130

MARKEM-IMAJE USA
100 Chastain Center Blvd
Suite 165

Kennesaw, GA 30144 - USA
Phone: 770-421-7700
Fax: 770-421-7702

Chemical Emergency Phone Number
Chemtrec: 1-800-424-9300 for US/ 703-527-3887 outside US

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Methyl ethyl ketone	78-93-3	60-100
Nitrocellulose	9004-70-0	5-10
Amines, C12-14-tert-alkyl, compounds with 1-[[5-(1,1-dimethylpropyl)-2-hydroxy-3-nitrophenyl]azo]-2-naphthalenol 1-[[2-hydroxy-4(or 5)-nitrophenyl]azo]-2-naphthalenol chromium complexes	117527-94-3	5-10
Isopropyl alcohol	67-63-0	3-7

Percentages may not equal 100% since only hazardous components are listed.

3. HAZARDS IDENTIFICATION

DANGER!

Emergency Overview

EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE
FLAMMABLE LIQUID AND VAPOR
May cause central nervous system depression
Irritating to eyes
Vapors may be irritating to eyes, nose, throat, and lungs

Color Black . **Physical State** Liquid. **Odor** Solvent.

Potential Health Effects
Principle Routes of Exposure Inhalation. Skin contact. Eye contact.

Acute Toxicity

Eyes Moderately irritating to the eyes. May cause irritation.

Skin May cause skin irritation and/or dermatitis. Repeated exposure may cause skin dryness or cracking. Prolonged skin contact may defat the skin and produce dermatitis. Irritating to skin.

Inhalation May cause irritation of respiratory tract. May be harmful by inhalation . May be harmful by inhalation . May cause irritation of respiratory tract. May be harmful if inhaled.

Ingestion May be harmful if swallowed . Ingestion may cause irritation to mucous membranes.

Chronic Effects Repeated or prolonged exposure may cause irritation of eyes and skin. Repeated and prolonged exposure to solvents may cause brain and nervous system damage. Avoid repeated exposure. May cause adverse effects on the bone marrow and blood-forming system. May cause adverse liver effects.

Aggravated Medical Conditions Central nervous system. Pre-existing eye disorders. Skin disorders. Respiratory disorders.

Interactions with Other Chemicals Use of alcoholic beverages may enhance toxic effects.

Environmental Hazard Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. See Section 12 for additional Ecological Information.

NFPA	**Health Hazard** 2	**Flammability** 3	**Stability** 0	**Reactivity** -
HMIS	**Health Hazard** 2	**Flammability** 3	**Reactivity** 0	

4. FIRST AID MEASURES

General Advice Call 911 or emergency medical service. Remove and isolate contaminated clothing and shoes.

Eye Contact In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.

Skin Contact Wash off immediately with plenty of water. Immediate medical attention is not required. Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

Inhalation Move victim to fresh air. Apply artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.

Ingestion Immediate medical attention is not required. Rinse mouth. Drink plenty of water. Do NOT induce vomiting. Clean mouth with water and afterwards drink plenty of water. Never give anything by mouth to an unconscious person. Consult a physician.

Notes to Physician Treat symptomatically.

Protection of First-aiders Remove all sources of ignition. Use personal protective equipment.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Dry chemical, CO_2, water spray or alcohol-resistant foam. Water spray, fog or alcohol-resistant foam.

Unsuitable Extinguishing Media CAUTION: All these products have a very low flash point. Do not use dry chemical extinguishers to control fires involving nitromethane or nitroethane. Do not use straight streams.

Specific Hazards Arising from the Chemical Extremely flammable. Keep product and empty container away from heat and sources of ignition. Risk of ignition.

Protective Equipment and Precautions for Firefighters Move containers from fire area if you can do it without risk.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Stop leak if you can do it without risk.

Environmental Precautions Prevent entry into waterways, sewers, basements or confined areas.

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Use clean non-sparking tools to collect absorbed material.

7. HANDLING AND STORAGE

Handling Ensure adequate ventilation. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. Use only in an area containing flame proof equipment. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment. Do not breathe vapors or spray mist. Avoid contact with skin, eyes and clothing.

Storage Keep tightly closed in a dry and cool place. Keep in properly labeled containers. Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat and sources of ignition. Keep away from heat. Protect from light.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines .

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Isopropyl alcohol 67-63-0	STEL: 400 ppm TWA: 200 ppm	TWA: 400 ppm TWA: 980 mg/m^3 TWA: 400 ppm	IDLH: 2000 ppm TWA: 400 ppm TWA: 980 mg/m^3 STEL: 500 ppm STEL: 1225 mg/m^3
Methyl ethyl ketone 78-93-3	STEL: 300 ppm TWA: 200 ppm	TWA: 200 ppm TWA: 590 mg/m^3 TWA: 200 ppm	IDLH: 3000 ppm TWA: 200 ppm TWA: 590 mg/m^3 STEL: 300 ppm STEL: 885 mg/m^3
Amines, C12-14-tert-alkyl, compounds with 1-[[5-(1,1-dimethylpropyl)-2-hydroxy-3-nitrophenyl]azo]-2-naphthalenol 1-[[2-hydroxy-4(or 5)-nitrophenyl]azo]-2-naphthalenol chromium complexes 117527-94-3	-	TWA: 0.5 mg/m^3 Cr	IDLH: 25 mg/m^3 Cr(III) TWA: 0.5 mg/m^3 Cr

NIOSH IDLH: Immediately Dangerous to Life or Health.
S*: Skin Notation

Other Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v.

Engineering Measures Ensure adequate ventilation. Use explosion-proof equipment.

Personal Protective Equipment

Eye/Face Protection Tightly fitting safety goggles. Face-shield.

Skin and Body Protection Antistatic boots. Wear fire/flame resistant/retardant clothing. Impervious gloves. Long sleeved clothing. Chemical resistant apron. Apron.

Respiratory Protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn

Hygiene Measures When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing.


Glasses


Gloves


Boots


Face Mask

9. PHYSICAL AND CHEMICAL PROPERTIES

Color	Black .	**Odor**	Solvent.
Physical State	Liquid	**pH**	Not determined
Flash Point	> 16°F / > -9°C	**Boiling Point/Range**	75°C / 167°F
Autoignition Temperature	Not determined400°C752°F	**Melting Point/Range**	Not determined-85°C-121°F
Flammability Limits in Air	Not determined	**Explosion Limits**	Not determined
		Upper	12.0
		Lower	1.8
Specific Gravity	0.87	**Solubility**	Not determined
Evaporation Rate	Not determined	**Vapor Pressure**	Not determined
Vapor Density	Not determined	**VOC Content(%)**	84.7126
VOC (lb/gal)	6.17246469	**VOC (g/l)**	741.180791509964

10. STABILITY AND REACTIVITY

Stability	Stable.
Incompatible Products	Incompatible with oxidizing agents. Incompatible with strong acids and bases.
Conditions to Avoid	Heat, flames and sparks.
Hazardous Decomposition Products	None.
Hazardous Polymerization	no.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
2-Naphthol	1960 mg/kg (Rat)	10 g/kg (Rabbit)	770 mg/m³ (Rat) 1 h
Isopropyl alcohol	4396 mg/kg (Rat)	12800 mg/kg (Rat) 12870 mg/kg (Rabbit)	72.6 mg/L (Rat) 4 h
Methyl ethyl ketone	2737 mg/kg (Rat)	6480 mg/kg (Rabbit)	

Chronic Toxicity

Chronic Toxicity Repeated or prolonged exposure may cause irritation of eyes and skin. Repeated and prolonged exposure to solvents may cause brain and nervous system damage. Avoid repeated exposure. May cause adverse effects on the bone marrow and blood-forming system. May cause adverse liver effects.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Nitrocellulose				X
Amines, C12-14-tert-alkyl, compounds with 1-[[5-(1,1-dimethylpropyl)-2-hydroxy-3-nitrophenyl]azo]-2-naphthalenol 1-[[2-hydroxy-4(or 5)-nitrophenyl]azo]-2-naphthalenol chromium complexes		Group 3		
Isopropyl alcohol		Group 3		X

Sensitization Not determined

Mutagenic Effects Not determined

Reproductive Toxicity Not determined

Developmental Toxicity Not determined

Teratogenic Not determined

Target Organ Effects Central nervous system (CNS), Eyes, Respiratory system, Skin.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Methyl ethyl ketone		3130-3320: 96 h Pimephales promelas mg/L LC50 flow-through		4025 - 6440: 48 h Daphnia magna mg/L EC50 Static 5091: 48 h Daphnia magna mg/L EC50 520: 48 h Daphnia magna mg/L EC50
Isopropyl alcohol	1000: 72 h Desmodesmus subspicatus mg/L EC50 1000: 96 h Desmodesmus subspicatus mg/L EC50	1400000: 96 h Lepomis macrochirus µg/L LC50		13299: 48 h Daphnia magna mg/L EC50

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Dispose of in accordance with local regulations. Should not be released into the environment. Can be landfilled or incinerated, when in compliance with local regulations. This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).

Contaminated Packaging Dispose of in accordance with local regulations. Empty containers should be taken for local recycling, recovery or waste disposal.

14. TRANSPORT INFORMATION

DOT

Proper Shipping Name	PRINTING INK
Hazard Class	3
UN-No	UN1210
Packing Group	II
Description	CUST-PRINTING INK

IATA Not regulated

UN-No	UN1210
Proper Shipping Name	Printing ink
Hazard Class	3
Packing Group	II
ERG Code	3L

15. REGULATORY INFORMATION

International Inventories

TSCA Complies

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values %
Amines, C12-14-tert-alkyl, compounds with 1-[[5-(1,1-dimethylpropyl)-2-hydroxy-3-nitrophenyl]azo]-2-naphthalenol 1-[[2-hydroxy-4(or 5)-nitrophenyl]azo]-2-naphthalenol chromium complexes	117527-94-3	6.63	1.0
Isopropyl alcohol	67-63-0	2.91	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Amines, C12-14-tert-alkyl, compounds with 1-[[5-(1,1-dimethylpropyl)-2-hydroxy-3-nitrophenyl]azo]-2-naphthalenol 1-[[2-hydroxy-4(or 5)-nitrophenyl]azo]-2-naphthalenol chromium complexes		X		

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Methyl ethyl ketone	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ RQ 5000 lb final RQ

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical Name	CAS-No	California Prop. 65
Naphthalene	91-20-3	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	Massachusetts	Pennsylvania	Illinois	Rhode Island
Methyl ethyl ketone	X	X	X	X
Nitrocellulose	X	X		X
Amines, C12-14-tert-alkyl, compounds with 1-[[5-(1,1-dimethylpropyl)-2-hydroxy-3-nitrophenyl]azo]-2-naphthalenol 1-[[2-hydroxy-4(or 5)-nitrophenyl]azo]-2-naphthalenol chromium complexes		X	X	X

Chemical Name	Massachusetts	Pennsylvania	Illinois	Rhode Island
Isopropyl alcohol	X	X		X

Chemical Name	New Jersey
Amines, C12-14-tert-alkyl, compounds with 1-[[5-(1,1-dimethylpropyl)-2-hydroxy-3-nitrophenyl]azo]-2-naphthalenol 1-[[2-hydroxy-4(or 5)-nitrophenyl]azo]-2-naphthalenol chromium complexes	X
Isopropyl alcohol	X
Methyl ethyl ketone	X
Nitrocellulose	X

International Regulations

Mexico - Grade Serious risk, Grade 3

Chemical Name	Carcinogen Status	Exposure Limits
Methyl ethyl ketone		Mexico: TWA 200 ppm Mexico: TWA 590 mg/m^3 Mexico: TWA 200 ppm Mexico: STEL 300 ppm Mexico: STEL 885 mg/m^3
Isopropyl alcohol		Mexico: TWA 400 ppm Mexico: TWA 980 mg/m^3 Mexico: TWA 400 ppm Mexico: STEL 500 ppm Mexico: STEL 1225 mg/m^3

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR

Chemical Name	NPRI
Methyl ethyl ketone	Part 1, Group 1 Substance Part 5 Substance Part 5, Individual Substance
Isopropyl alcohol	Part 1, Group 1 Substance Part 5 Substance Part 5, Individual Substance

16. OTHER INFORMATION

Prepared By Environmental and Safety Department
150 Congress St. PO Box 2100.
Keene, NH 03431
(603) 352-1130
Issuing Date 14-Apr-2014
Revision Date 04-Sep-2014
Revision Note No information available

General Disclaimer
The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication

End of Safety Data Sheet

Material Safety Data Sheet

Issuing Date 20-Nov-2014 **Revision Date** 04-Sep-2014 **Revision Number** 6

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name **5191**

Product Code(s) **5191**

Recommended Use Additive

Supplier Address
Markem-Imaje
150 Congress St. PO Box 2100
Keene, NH 03431
(603) 352-1130

MARKEM-IMAJE USA
100 Chastain Center Blvd
Suite 165

Kennesaw, GA 30144 - USA
Phone: 770-421-7700
Fax: 770-421-7702

Chemical Emergency Phone Number
Chemtrec: 1-800-424-9300 for US/ 703-527-3887 outside US

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Methyl ethyl ketone	78-93-3	60-100

Percentages may not equal 100% since only hazardous components are listed.

3. HAZARDS IDENTIFICATION

DANGER!

Emergency Overview

EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE
FLAMMABLE LIQUID AND VAPOR
Irritating to eyes
Vapors may be irritating to eyes, nose, throat, and lungs
May cause central nervous system depression

Color Pink. **Physical State** Liquid. **Odor** Solvent.

Potential Health Effects
Principle Routes of Exposure Inhalation. Skin contact. Eye contact.

Acute Toxicity
Eyes Moderately irritating to the eyes. May cause irritation.
Skin May cause skin irritation and/or dermatitis. Repeated exposure may cause skin dryness or cracking. Prolonged skin contact may defat the skin and produce dermatitis. May cause irritation.
Inhalation May cause irritation of respiratory tract. May be harmful if inhaled.

Ingestion	May be harmful if swallowed . Ingestion may cause irritation to mucous membranes.
Chronic Effects	Repeated or prolonged exposure may cause irritation of eyes and skin. Repeated and prolonged exposure to solvents may cause brain and nervous system damage. Avoid repeated exposure.
Aggravated Medical Conditions	Central nervous system. Pre-existing eye disorders. Skin disorders. Respiratory disorders.
Interactions with Other Chemicals	Use of alcoholic beverages may enhance toxic effects.
Environmental Hazard	See Section 12 for additional Ecological Information

NFPA	**Health Hazard** 2	**Flammability** 3	**Stability** 0	**Reactivity** -
HMIS	**Health Hazard** 2	**Flammability** 3	**Reactivity** 0	

4. FIRST AID MEASURES

General Advice	Call 911 or emergency medical service. Remove and isolate contaminated clothing and shoes.
Eye Contact	In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
Skin Contact	Wash skin with soap and water.
Inhalation	Move victim to fresh air. Apply artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.
Ingestion	Immediate medical attention is not required. Rinse mouth. Drink plenty of water. Do NOT induce vomiting. Clean mouth with water and afterwards drink plenty of water. Never give anything by mouth to an unconscious person. Consult a physician.
Notes to Physician	Keep victim warm and quiet.
Protection of First-aiders	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Dry chemical, CO_2, water spray or alcohol-resistant foam.
Unsuitable Extinguishing Media	CAUTION: All these products have a very low flash point.
Specific Hazards Arising from the Chemical	Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. Vapor explosion hazard indoors, outdoors or in sewers. Those substances designated with a "P" may polymerize explosively when heated or involved in a fire. Runoff to sewer may create fire or explosion hazard.
Protective Equipment and Precautions for Firefighters	Move containers from fire area if you can do it without risk.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Stop leak if you can do it without risk.

Environmental Precautions Prevent entry into waterways, sewers, basements or confined areas.

Methods for Containment A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

Methods for Cleaning Up Use clean non-sparking tools to collect absorbed material. Dike far ahead of liquid spill for later disposal.

Other Information Water spray may reduce vapor; but may not prevent ignition in closed spaces.

7. HANDLING AND STORAGE

Handling Ensure adequate ventilation. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. Use only in an area containing flame proof equipment. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment. Do not breathe vapors or spray mist. Avoid contact with skin, eyes and clothing.

Storage Keep tightly closed in a dry and cool place. Keep in properly labeled containers. Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat and sources of ignition. Keep away from heat. Protect from light.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines .

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Methyl ethyl ketone 78-93-3	STEL: 300 ppm TWA: 200 ppm	TWA: 200 ppm TWA: 590 mg/m^3 TWA: 200 ppm	IDLH: 3000 ppm TWA: 200 ppm TWA: 590 mg/m^3 STEL: 300 ppm STEL: 885 mg/m^3

NIOSH IDLH: Immediately Dangerous to Life or Health.
S*: Skin Notation

Other Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v.

Engineering Measures Ensure adequate ventilation. Use explosion-proof equipment.

Personal Protective Equipment

Eye/Face Protection Tightly fitting safety goggles. Face-shield.

Skin and Body Protection Antistatic boots. Wear fire/flame resistant/retardant clothing. Impervious gloves. Long sleeved clothing. Chemical resistant apron. Apron.

Respiratory Protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn

Hygiene Measures When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing.


Glasses


Gloves


Boots


Face Mask

9. PHYSICAL AND CHEMICAL PROPERTIES

Color	Pink.	**Odor**	Solvent.
Physical State	Liquid	**pH**	Not determined
Flash Point	>16°F / >-9°C	**Boiling Point/Range**	75°C / 167°F
Autoignition Temperature	500°C / 932°F	**Melting Point/Range**	-85°C / -121°F
Flammability Limits in Air	Not determined	**Explosion Limits**	Not determined
		Upper	11.5
		Lower	1.8
Specific Gravity	0.81	**Solubility**	Not determined
Evaporation Rate	Not determined	**Vapor Pressure**	Not determined
Vapor Density	Not determined	**Liquid Density**	6.67
VOC Content(%)	99.9998	**VOC (lb/gal)**	6.75297
VOC (g/l)	810.887044481909		

10. STABILITY AND REACTIVITY

Stability Stable.

Incompatible Products Incompatible with oxidizing agents. Incompatible with strong acids and bases.

Conditions to Avoid Heat, flames and sparks.

Hazardous Decomposition Products None.

Hazardous Polymerization no.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Methyl ethyl ketone	2737 mg/kg (Rat)	6480 mg/kg (Rabbit)	

Chronic Toxicity

Chronic Toxicity Repeated or prolonged exposure may cause irritation of eyes and skin. Repeated and prolonged exposure to solvents may cause brain and nervous system damage. Avoid repeated exposure.

Sensitization Not determined

Mutagenic Effects Not determined

Reproductive Toxicity Not determined

Developmental Toxicity Not determined

Teratogenic Not determined

Target Organ Effects Central nervous system (CNS), Eyes, Respiratory system, Skin.

12. ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Methyl ethyl ketone		3130-3320: 96 h Pimephales promelas mg/L LC50 flow-through		4025 - 6440: 48 h Daphnia magna mg/L EC50 Static 5091: 48 h Daphnia magna mg/L EC50 520: 48 h Daphnia magna mg/L EC50

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Dispose of in accordance with local regulations. Should not be released into the environment. Can be landfilled or incinerated, when in compliance with local regulations. This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).

Contaminated Packaging Dispose of in accordance with local regulations. Empty containers should be taken for local recycling, recovery or waste disposal.

14. TRANSPORT INFORMATION

DOT

Proper Shipping Name	METHYL ETHYL KETONE
Hazard Class	3
UN-No	UN1193
Packing Group	II
Description	CUST-METHYL ETHYL KE

IATA

UN-No	UN1193
Proper Shipping Name	Methyl ethyl ketone
Hazard Class	3
Packing Group	II
ERG Code	3L

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Methyl ethyl ketone	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ RQ 5000 lb final RQ

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical Name	Massachusetts	Pennsylvania	Illinois	Rhode Island
Methyl ethyl ketone	X	X	X	X

Chemical Name	New Jersey
Methyl ethyl ketone	X

International Regulations

Mexico - Grade Serious risk, Grade 3

Chemical Name	Carcinogen Status	Exposure Limits
Methyl ethyl ketone		Mexico: TWA 200 ppm Mexico: TWA 590 mg/m^3 Mexico: TWA 200 ppm Mexico: STEL 300 ppm Mexico: STEL 885 mg/m^3

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR

Chemical Name	NPRI
Methyl ethyl ketone	Part 1, Group 1 Substance Part 5 Substance Part 5, Individual Substance

16. OTHER INFORMATION

Prepared By Environmental and Safety Department
150 Congress St. PO Box 2100.
Keene, NH 03431
(603) 352-1130

Issuing Date 20-Nov-2014
Revision Date 04-Sep-2014
Revision Note All.

General Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication

End of Safety Data Sheet

SAFETY DATA SEEET

1. Identification

Product identifier **SW-4 OzzyJuice® Eeavy Duty Degreasing Solution (Ready to Use) - 5 gal**

Other means of identification

Product Code No. 14148 (Item# 1004853)

Recommended use Solution for SmartWasher® parts washing systems

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company Name ChemFree Corporation (A subsidiary of CRC Industries, Inc.)

Address 8 Meca Way
Norcross, GA 30093 USA

Telephone

General Information 770-564-5580 (ChemFree)
215-674-4300 (CRC)

Technical Assistance 800-521-7182 (ChemFree)

Fax 770-564-5533 (ChemFree)

24-Eour Emergency (CEEMTREC) 800-424-9300 (US)

Website www.chemfree.com
www.crcindustries.com

2. Eazard(s) identification

Physical hazards Not classified.

Eealth hazards Not classified.

Environmental hazards Not classified.

OSEA defined hazards Not classified.

Label elements

Eazard symbol None.

Signal word None.

Eazard statement The mixture does not meet the criteria for classification.

Precautionary statement

Prevention Use with adequate ventilation. Observe good industrial hygiene practices.

Response Wash hands after handling.

Storage Store away from incompatible materials.

Disposal Dispose of contents/container in accordance with local/regional/national regulations.

Eazard(s) not otherwise classified (ENOC) None known.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
water		7732-18-5	90 - 100
sodium citrate		68-04-2	1 - 3
surfactant blend		Proprietary	1 - 3

Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.
Skin contact	Rinse skin with water/shower. Get medical attention if irritation develops and persists.
Eye contact	Rinse with plenty of water. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. If ingestion of a large amount does occur, call a poison control center immediately.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	None known.
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	Cool containers with water spray.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	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. Absorb in vermiculite, dry sand or earth and place into containers. 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.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Eandling and storage

Precautions for safe handling	Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. For product usage instructions, see the product label.
Conditions for safe storage, including any incompatibilities	Store in a cool, dry place out of direct sunlight. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	No special precautions are necessary beyond normal good hygiene practices. See Section 8 of the SDS for additional personal protection advice when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin protection	
Eand protection	Wear protective gloves, if needed: Nitrile. Neoprene. Rubber.
Other	Wear suitable protective clothing.

Respiratory protection	No personal respiratory protective equipment normally required. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	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	
Physical state	Liquid.
Form	Liquid.
Color	Amber.
Odor	Odorless.
Odor threshold	Not available.
pE	7.5 - 8.5
Melting point/freezing point	19.4 °F (-7 °C) estimated
Initial boiling point and boiling range	212 °F (100 °C) estimated
Flash point	200 °F (93.3 °C) estimated
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Vapor pressure	21.1 hPa estimated
Vapor density	Not available.
Relative density	1.02
Solubility(ies)	
Solubility (water)	Soluble.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Percent volatile	96 % estimated
Other information	
VOC	0.0000005 % estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Heat, flames and sparks. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Oxidizing agents. Reducing agents.
Eazardous decomposition products	Hydrochloric acid. Sodium oxides. Nitrogen oxides (NOx). Carbon oxides.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
Skin contact	Prolonged skin contact may cause temporary irritation.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Health injuries are not known or expected under normal use.
Symptoms related to the physical, chemical and toxicological characteristics	Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity Not classified.

Components	Species	Test Results
surfactant blend		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Oral		
LD50	Rat	> 2000 mg/kg

Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Respiratory sensitization	Not a respiratory sensitizer.
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	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSEA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not an aspiration hazard.
Further information	This product has no known adverse effect on human health.

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.

Product		Species	Test Results
SW-4 OzzyJuice® Heavy Duty Degreasing Solution (Ready to Use) - 5 gal			
Aquatic			
Acute			
Crustacea	EC50	Daphnia	328.3562 mg/l, 48 hours estimated
Fish	LC50	Fish	43103.4492 mg/l, 96 hours estimated

Components		Species	Test Results
sodium citrate (CAS 68-04-2)			
Aquatic			
Crustacea	EC50	Water flea (Ceriodaphnia dubia)	655 - 825.9 mg/l, 48 hours
surfactant blend			
Aquatic			
Acute			
Crustacea	EC50	Water flea (Daphnia magna)	5.3 mg/l, 48 hours

Persistence and degradability No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential No data available.

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 This product is not a RCRA hazardous waste (See 40 CFR Part 261.20 – 261.33). Empty containers may be recycled. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose in accordance with all applicable regulations.

Eazardous waste code Not regulated.

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory information

US federal regulations This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

SARA 304 Emergency release notification

Not regulated.

OSEA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

CERCLA Eazardous Substance List (40 CFR 302.4)

Not listed.

CERCLA Eazardous Substances: Reportable quantity

Not listed.

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Other federal regulations

Clean Air Act (CAA) Section 112 Eazardous Air Pollutants (EAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Contains component(s) regulated under the Safe Drinking Water Act.

Food and Drug Administration (FDA) Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Eazardous chemical No

SARA 313 (TRI reporting)

Not regulated.

US state regulations

US. New Jersey Worker and Community Right-to-Know Act

Not listed.

US. Massachusetts RTK - Substance List

Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed.

US. Rhode Island RTK

Not listed.

California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 2016 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

Volatile organic compounds (VOC) regulations

EPA

VOC content (40 CFR 51.100(s))	Not determined.
Consumer products (40 CFR 59, Subpt. C)	Not regulated

State

Consumer products	Not regulated
VOC content (CA)	0 %
VOC content (OTC)	0 %

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)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
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	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	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	04-23-2019
Prepared by	Dustin Kern
Version #	01
Further information	Chemfree # SW-4 RTU

Disclaimer

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of ChemFree Corporation's knowledge or obtained from sources believed by ChemFree to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this (M)SDS consult your supervisor, a health & safety professional, or ChemFree Corporation.

Revision information

Product and Company Identification: Product Codes
Composition / Information on Ingredients: Ingredients
Physical & Chemical Properties: Multiple Properties

SAFETY DATA SEEET

1. Identification

Product identifier SW-7 OzzyJuice® Parts/Brake Cleaning Solution (Ready to Use)

Other means of identification

Product Code No. 14721 (Item# 1005006)

Recommended use Solution for SmartWasher® parts washing systems

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company Name ChemFree Corporation (A subsidiary of CRC Industries, Inc.)

Address 8 Meca Way
Norcross, GA 30093 USA

Telephone

General Information 770-564-5580 (ChemFree)
215-674-4300 (CRC)

Technical Assistance 800-521-7182 (ChemFree)

Fax 770-564-5533 (ChemFree)

24-Eour Emergency (CEEMTREC) 800-424-9300 (US)

Website www.chemfree.com
www.crcindustries.com

2. Eazard(s) identification

Physical hazards Not classified.

Eealth hazards Not classified.

Environmental hazards Not classified.

OSEA defined hazards Not classified.

Label elements

Eazard symbol None.

Signal word None.

Eazard statement The mixture does not meet the criteria for classification.

Precautionary statement

Prevention Use with adequate ventilation. Observe good industrial hygiene practices.

Response Wash hands after handling.

Storage Store away from incompatible materials.

Disposal Dispose of contents/container in accordance with local/regional/national regulations.

Eazard(s) not otherwise classified (ENOC) None known.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
water		7732-18-5	80 - 90
surfactant blend		68439-46-3	1 - 3
tetrapotassium pyrophosphate		7320-34-5	1 - 3

Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.
Skin contact	Rinse skin with water/shower. Get medical attention if irritation develops and persists.
Eye contact	Rinse with plenty of water. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. If ingestion of a large amount does occur, call a poison control center immediately.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	None known.
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	Cool containers with water spray.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	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. Absorb in vermiculite, dry sand or earth and place into containers. 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.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Eandling and storage

Precautions for safe handling	Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. For product usage instructions, see the product label.
Conditions for safe storage, including any incompatibilities	Store in a cool, dry place out of direct sunlight. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits	This mixture has no ingredients that have PEL, TLV, or other recommended exposure limit.
Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	No special precautions are necessary beyond normal good hygiene practices. See Section 8 of the SDS for additional personal protection advice when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin protection	
Eand protection	Wear protective gloves, if needed: Nitrile. Neoprene. Rubber.
Other	Wear suitable protective clothing.

Respiratory protection	No personal respiratory protective equipment normally required. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	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	
Physical state	Liquid.
Form	Liquid.
Color	Light yellow.
Odor	Odorless.
Odor threshold	Not available.
pE	6.8 - 7.8
Melting point/freezing point	-58 °F (-50 °C) estimated
Initial boiling point and boiling range	212 °F (100 °C) estimated
Flash point	200 °F (93.3 °C) estimated
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Vapor pressure	20.8 hPa estimated
Vapor density	Not available.
Relative density	1.02
Solubility(ies)	
Solubility (water)	Soluble.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Percent volatile	94.5 % estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Heat, flames and sparks. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong acids. Strong oxidizing agents. Metals. Aluminum.
Eazardous decomposition products	Hydrochloric acid. Potassium oxide. Nitrogen oxides (NOx). Oxides of phosphorus. Carbon oxides.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
Skin contact	Prolonged skin contact may cause temporary irritation.

Eye contact Direct contact with eyes may cause temporary irritation.

Ingestion Health injuries are not known or expected under normal use.

Symptoms related to the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity Not known.

Components	Species	Test Results
surfactant blend (CAS 68439-46-3)		
Acute		
Dermal		
LD50	Rabbit	k 2000 mg/kg
Oral		
LD50	Rat	k 2000 mg/kg

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

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 This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSEA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not an aspiration hazard.

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.

Product		Species	Test Results
SW-7 OzzyJuice® Parts/Brake Cleaning Solution (Ready to Use)			
Aquatic			
Acute			
Crustacea	EC50	Daphnia	224.3685 mg/l, 48 hours estimated
Fish	LC50	Fish	49879.1602 mg/l, 96 hours estimated

Components		Species	Test Results
surfactant blend (CAS 68439-46-3)			
Aquatic			
Acute			
Crustacea	EC50	Water flea (Daphnia magna)	5.3 mg/l, 48 hours

Persistence and degradability No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential No data available.

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 This product is not a RCRA hazardous waste (See 40 CFR Part 261.20 – 261.33). Empty containers may be recycled. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose in accordance with all applicable regulations.

Eazardous waste code Not regulated.

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory information

US federal regulations This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

SARA 304 Emergency release notification

Not regulated.

OSEA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

CERCLA Eazardous Substance List (40 CFR 302.4)

Not listed.

CERCLA Eazardous Substances: Reportable quantity

Not listed.

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Other federal regulations

Clean Air Act (CAA) Section 112 Eazardous Air Pollutants (EAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

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Safe Drinking Water Act (SDWA) Not regulated.

Food and Drug Administration (FDA) Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

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Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
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United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

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16. Other information, including date of preparation or last revision

Issue date	01-08-2019
Prepared by	Dustin Kern
Version #	01
Further information	Chemfree # SW-7 RTU
Disclaimer	The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC's knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this (M)SDS consult your supervisor, a health & safety professional, or ChemFree Corporation.
Revision information	This document has undergone significant changes and should be reviewed in its entirety.