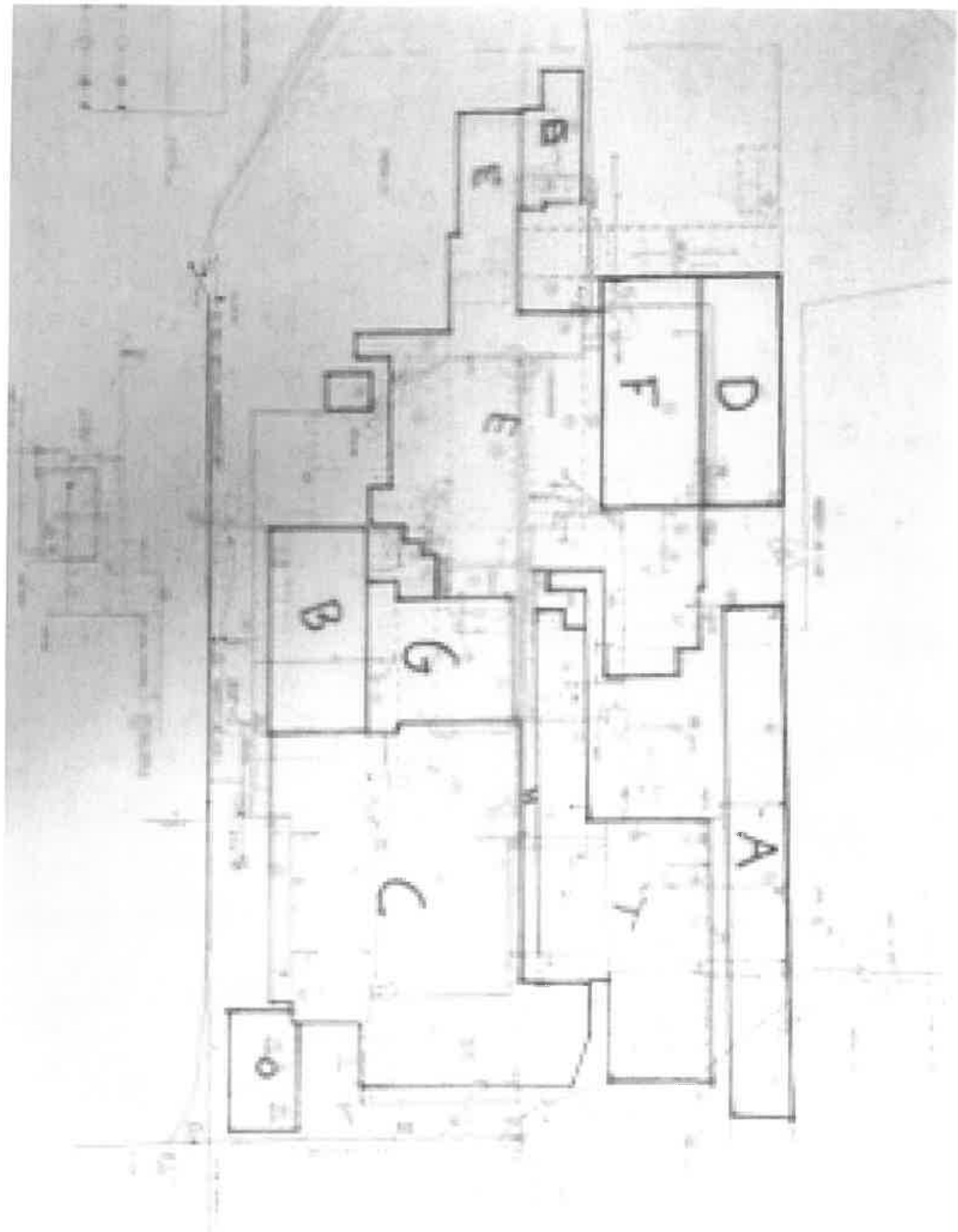


<b>A</b>	Nylon 66						<b>H</b>
	Nylong 6						HCR
	Nylon 612						
	PET						
	PETG						
	PBT						
	Surlyn						
	HCR						
<b>B</b>	Triacetate						
	Nylon 6						
	Nylon 66						
	Nylon 612						
	PET						
	PBT						
	HTN						
	PPO						
	ABS						
<b>C</b>	LCP						
	Nylon 6						
	Nylon 66						
	Nylon 612						
	PET						
	PETG						
	PCTA						
<b>D</b>	HTN						
	PET						
	PETG						
	Cellulose Biacetate						
<b>E</b>	HTN						
	PET						
	PETG						
	PCTA						
<b>F</b>	Cellulose Biacetate						
	HTN						
	Nylon 66						
	HCR						
<b>G</b>	HTN						
	Nylon 6						
	Nylon 66						
	Nylon 612						
	LCP						
	ABS						



**NGI Inventory Summary**

Polymer	Grade	Description	Color	Weight	Total Rows
<b>ABS</b>					
	ABS	ABS, Parts from Electronic	Color	174,120 lbs.	224
	ABS 520L	ABS, Color Lumps	Color	89,604 lbs.	112
	ABS 520P	ABS, Color Powder, Ash less then 5%	Color	396,517 lbs.	611
	ABS 521L	ABS, Mixed Color Lumps, can have SAN	Color	518,339 lbs.	601
	ABS 521P	ABS, Color Powder, Ash higher then 5%	Color	418,252 lbs.	466
	ABS G20-310	ABS, 20% Glass Filled Black Pelelts	Black	151,769 lbs.	152
<b>CA</b>					
	CA	Triacetate	Natural	1,045,654 lbs.	1163
	CA 120L	CA, Natural Lumps	Natural	92,242 lbs.	119
	CA 120P	CA, Natural Powder in Drums	Natural	118,740 lbs.	158
	CA 361FS	Cellulose Acetate, Natural Flake Floor Sweep	Natural	149,608 lbs.	166
	CA 361P	Cellulose Acetate, Wood based Natural Powder	Natural	468,016 lbs.	522
	CA 362P	Cellulose Acetate, Wood based natural powder, may hav black specs	Natural	319,429 lbs.	354
	CA 520P	CA, Color Powder	Color	357,944 lbs.	478
	CA 561P	CA, Natural Powder	Natural	23,376 lbs.	36
	CA 971P	CA, Natural Powder, overs	Natural	73,141 lbs.	112
	CA FR-120	Cellulose Acetate, Natural Filer Rod	Natural	118,485 lbs.	113
	SMASE	CA, SMASE Powder	Natural	1,957 lbs.	2
<b>CAB</b>					
	CAB 120	CAB, Natural Contaminated Pellets in Drums	Natural	118,188 lbs.	155
	CAB 510P	CAB, Color Powder	Color	295,035 lbs.	390
	CAB 520P	CAB, Color Powder	Color	240,819 lbs.	300
	CAB 520P	CAB, Color Powder	natural	102,038 lbs.	113
	CAB 971P	CAB, Natural Powder, Overs	Natural	53,662 lbs.	76
<b>CAP</b>					
	CAP 120	CAP, Natural pellets with contamination in drums	Natural	27,535 lbs.	39
	CAP 510P	CAP, Color Powder	Color	274,510 lbs.	363
	CAP 520P	CAP, Color Powder	Color	177,364 lbs.	223
	CAP 520P	CAP, Color Powder	Natural	71,080 lbs.	79
	CAP 971P	CAP, Natural Powder, Overs	Natural	55,024 lbs.	85
<b>EPS</b>					
	EPS	EPS, Black	Color	421,398 lbs.	469
<b>HCR</b>					
	HCR 200	HCR, Aliphatic Resin	Natural	284,265 lbs.	383
	HCR 250	HCR, Amromatic and Aliphatic Resins	natural	85,670 lbs.	123
	HCR 700	HCR, Aromatic Resin	natural	215,129 lbs.	308
	HCR C5	HCR, C5 Aliphatic Resin	Natural	390,112 lbs.	557
	HCR C59	HCR, Aromatic and Aliphatic Mix	Natural	77,473 lbs.	113
	HCR C9	HCR, Natural Aromatic Resin	Natural	642,516 lbs.	923
<b>HTN</b>					
	HTN 101RG	HTN, Natural Regrind	Natural	143,525 lbs.	156
	HTN 102RG	HTN, Off Natural Regrind	Off Natura	35,380 lbs.	37
	HTN 120L	HTN, Natural Lumps	Natural	287,916 lbs.	385
	HTN FS	HTN, Floor Sweep- can also have PA66	Color	1,489,312 lbs.	1286
	HTN GF 301RG	HTN, Glass Filled Regrind	Black	73,323 lbs.	77
	HTN GF 320L	HTN, Glass Filled Lumps	Black	61,168 lbs.	83
<b>HTN/PA66</b>					

LCP	HTN/PA66	HTN, Mixed with PA66 Pellets	Color	179,034 lbs.	199
	LCP 120L	LCP, Natural Lumps	Natural	35,154 lbs.	39
	LCP GF 520L	LCP, Glass Filled Lumps	Color	30,791 lbs.	44
	LCP GF-320	LCP, Glass Filled Black Pellets	Black	45,627 lbs.	43
	LCP NG 125	LCP, Off Natural Pellets	Natural	78,600 lbs.	75
	LCP NG-120	LCP, Natural Pellets	Natural	87,136 lbs.	79
PA6	LCP NG-125	LCP, Natural Pellets	Natural	36,779 lbs.	37
	PA6 100L	PA6, Natural Lumps	natural	27,530 lbs.	37
	PA6 120L	PA6, Natural Lumps	Natural	62,503 lbs.	77
	PA6 520L	PA6, Mixed Color Lumps	Color	314,356 lbs.	448
	PA6 NG 120	PA66, Natural Pellets	Natural	42,953 lbs.	41
PA610	PA6 NG 120C	PA6, Copolymer Natural Pellets	Natural	126,078 lbs.	119
	PA610 NG 120	PA610, Natural off color pellets	Natural	35,515 lbs.	35
PA612	PA612 FS	PA612, Florr Sweep	Color	897,379 lbs.	846
	PA612 NG 150	PA612, Natural pellets mixed with Selar	Natural	37,300 lbs.	39
PA66	PA66 102RG	PA66, off Natural Regrind	Natural	69,822 lbs.	77
	PA66 120	PA66, Natural Pellets with HTN Contamination	Natural	43,333 lbs.	41
	PA66 120L-A	PA66, Natural Lumps	Natural	30,890 lbs.	36
	PA66 120L-C	PA66, Natural Lumps C Grade	Natural	64,582 lbs.	73
	PA66 520RM	PA66, Mixed Color Pellets with Glass Fiber	Color	1,606,261 lbs.	1359
	PA66 520RM NB	PA66, Color Pellets with Fiber Glass, Not blended	Color	521,966 lbs.	523
	PA66 AB 100C	PA66, Airbag Coated	Natural	76,871 lbs.	73
	PA66 Fines	PA66, Natural Fines	Natural	77,462 lbs.	118
	PA66 GF 101RG	PA66, Glass Filled Natural Regrind	Natural	83,143 lbs.	83
	PA66/PET AB 520C	PA66, Mixed with PET Fabric	Color	73,346 lbs.	82
PBT	PBT M20-400RG	PBT, 20% Mineral Filled Grey Regrind	Regrind	318,939 lbs.	303
PCTA	PCTA 120	PCTA, Natural Pellets	Natural	794,330 lbs.	811
	PCTA 121	PCTA, Off Color Mixed Pellets, can have PET	Natural	457,196 lbs.	458
	PCTA 150	PCTA, Mixed Natural Pellets	Natural	139,940 lbs.	156
PCTG	PCTG 150	PCTG, Mixed Natural Pellets	Natural	238,140 lbs.	238
PEC	PEC 120RG	PEC, Natural Regrind	Natural	194,882 lbs.	162
PET	PET 100F	PET, Natural Fiber	Natural	32,657 lbs.	36
	PET 121L	PET Lumps, Natural	Natural	459,009 lbs.	715
	PET 150	PET, Mixed with other Copolyester	Natural	231,356 lbs.	268
	PET 520	PET, Mixed Color Pellets	Color	317,931 lbs.	318
	PET 520B	PET, Mixed Color Bottles	Color	231,123 lbs.	272
	PET 521L	PRTG, Color Lumps	Color	702,003 lbs.	1003
	PET F 100	PET, Natural Pellets	Natural	343,346 lbs.	361
	PETCO 520	PET, Mixed With Copolyester Pellets	Color	276,792 lbs.	328
PETG					

	<b>PETG 121</b>	<b>PETG, Off Natural Pellets</b>	<b>Off Natura</b>	<b>399,528 lbs.</b>	<b>419</b>
	<b>PETG 121L</b>	<b>PETG, Natural Lumps</b>	<b>Natural</b>	<b>441,767 lbs.</b>	<b>630</b>
	<b>PETG 150</b>	<b>PETG, Mixed Natural Pellets</b>	<b>Natural</b>	<b>278,588 lbs.</b>	<b>310</b>
	<b>PETG 521</b>	<b>PETG, Color Pellets for Export</b>	<b>Color</b>	<b>266,070 lbs.</b>	<b>358</b>
	<b>PETG 6763-100</b>	<b>PET, 6763 Natural Pellets</b>	<b>Natural</b>	<b>305,713 lbs.</b>	<b>305</b>
<b>PPO</b>	<b>PPO 320P</b>	<b>PPO, Black Xoloe Powder</b>	<b>Black</b>	<b>131,469 lbs.</b>	<b>116</b>
			<b>Total Box Count : 24302</b>		

**A Section Summary**

<b>Polymer</b>	<b>Grade</b>	<b>Description</b>	<b>Color</b>	<b>Weight</b>	<b>Total Rows</b>
<b>HCR</b>					
	<b>HCR 200</b>	<b>HCR, Aliphatic Resin</b>	<b>Natural</b>	<b>125,717 lbs.</b>	<b>156</b>
<b>PA6</b>					
	<b>PA6 100L</b>	<b>PA6, Natural Lumps</b>	<b>natural</b>	<b>27,530 lbs.</b>	<b>37</b>
	<b>PA6 120L</b>	<b>PA6, Natural Lumps</b>	<b>Natural</b>	<b>62,503 lbs.</b>	<b>77</b>
	<b>PA6 NG 120</b>	<b>PA66, Natural Pellets</b>	<b>Natural</b>	<b>42,953 lbs.</b>	<b>41</b>
<b>PA612</b>					
	<b>PA612 FS</b>	<b>PA612, Florr Sweep</b>	<b>Color</b>	<b>179,327 lbs.</b>	<b>150</b>
<b>PA66</b>					
	<b>PA66 102RG</b>	<b>PA66, off Natural Regrind</b>	<b>Natural</b>	<b>69,822 lbs.</b>	<b>77</b>
	<b>PA66 120</b>	<b>PA66, Natural Pellets with HTN Contamination</b>	<b>Natural</b>	<b>43,333 lbs.</b>	<b>41</b>
	<b>PA66 120L-A</b>	<b>PA66, Natural Lumps</b>	<b>Natural</b>	<b>30,890 lbs.</b>	<b>36</b>
	<b>PA66 520RM</b>	<b>PA66, Mixed Color Pellets with Glass Fiber</b>	<b>Color</b>	<b>180,586 lbs.</b>	<b>159</b>
	<b>PA66 Fines</b>	<b>PA66, Natural Fines</b>	<b>Natural</b>	<b>77,462 lbs.</b>	<b>118</b>
	<b>PA66 GF 101RG</b>	<b>PA66, Glass Filled Natural Regrind</b>	<b>Natural</b>	<b>83,143 lbs.</b>	<b>83</b>
<b>PCTG</b>					
	<b>PCTG 150</b>	<b>PCTG, Mixed Natural Pellets</b>	<b>Natural</b>	<b>238,140 lbs.</b>	<b>238</b>
<b>PEC</b>					
	<b>PEC 120RG</b>	<b>PEC, Natural Regrind</b>	<b>Natural</b>	<b>194,882 lbs.</b>	<b>162</b>
<b>PET</b>					
	<b>PET 150</b>	<b>PET, Mixed with other Copolyester</b>	<b>Natural</b>	<b>100,266 lbs.</b>	<b>112</b>
	<b>PET 520</b>	<b>PET, Mixed Color Pellets</b>	<b>Color</b>	<b>317,931 lbs.</b>	<b>318</b>
				<b>Total Box Count : 1805</b>	

**B Section Summary**

<b>Polymer</b>	<b>Grade</b>	<b>Description</b>	<b>Color</b>	<b>Weight</b>	<b>Total Rows</b>
<b>ABS</b>					
	<b>ABS</b>	<b>ABS, Parts from Electronic</b>	<b>Color</b>	<b>101,218 lbs.</b>	<b>112</b>
<b>CA</b>					
	<b>CA</b>	<b>Triacetate</b>	<b>Natural</b>	<b>420,362 lbs.</b>	<b>467</b>
	<b>CA 362P</b>	<b>Cellulosew Acetate, Wood based natural powder, may hav black specs</b>	<b>Natural</b>	<b>319,429 lbs.</b>	<b>354</b>
<b>HTN</b>					
	<b>HTN 102RG</b>	<b>HTN,Off Natural Regrind</b>	<b>Off Natura</b>	<b>35,380 lbs.</b>	<b>37</b>
	<b>HTN 120L</b>	<b>HTN, Natural Lumps</b>	<b>Natural</b>	<b>163,105 lbs.</b>	<b>231</b>
<b>PA6</b>					
	<b>PA6 520L</b>	<b>PA6, Mixed Color Lumps</b>	<b>Color</b>	<b>168,200 lbs.</b>	<b>240</b>
<b>PA612</b>					
	<b>PA612 F5</b>	<b>PA612, Florr Sweep</b>	<b>Color</b>	<b>229,074 lbs.</b>	<b>229</b>
<b>PA66</b>					
	<b>PA66 520RM</b>	<b>PA66, Mixed Color Pellets with Glass Fiber</b>	<b>Color</b>	<b>356,279 lbs.</b>	<b>308</b>
<b>PBT</b>					
	<b>PBT M20-400RG</b>	<b>PBT, 20% Mineral Filled Grey Regrind</b>	<b>Regrind</b>	<b>318,939 lbs.</b>	<b>303</b>
<b>PET</b>					
	<b>PET 121L</b>	<b>PET Lumps, Natural</b>	<b>Natural</b>	<b>178,192 lbs.</b>	<b>237</b>
<b>PPO</b>					
	<b>PPO 320P</b>	<b>PPO, Black Xoloe Powder</b>	<b>Black</b>	<b>131,469 lbs.</b>	<b>116</b>
				<b>Total Box Count : 2634</b>	

**C Section Summary**

<b>Polymer</b>	<b>Grade</b>	<b>Description</b>	<b>Color</b>	<b>Weight</b>	<b>Total Rows</b>
<b>ABS</b>					
	<b>ABS</b>	<b>ABS, Parts from Electronic</b>	<b>Color</b>	<b>72,902 lbs.</b>	<b>112</b>
	<b>ABS G20-310</b>	<b>ABS, 20% Glass Filled Black Pelelts</b>	<b>Black</b>	<b>151,769 lbs.</b>	<b>152</b>
<b>CA</b>					
	<b>CA</b>	<b>Triacetate</b>	<b>Natural</b>	<b>625,292 lbs.</b>	<b>696</b>
	<b>CA 361FS</b>	<b>Cellulose Acetate, Natural Flake Floor Sweep</b>	<b>Natural</b>	<b>149,608 lbs.</b>	<b>166</b>
	<b>CA 361P</b>	<b>Cellulose Acetate, Wood based Natural Powder</b>	<b>Natural</b>	<b>432,215 lbs.</b>	<b>480</b>
	<b>CA FR-120</b>	<b>Cellulose Acetate, Natural Filer Rod</b>	<b>Natural</b>	<b>118,485 lbs.</b>	<b>113</b>
<b>EPS</b>					
	<b>EPS</b>	<b>EPS, Black</b>	<b>Color</b>	<b>421,398 lbs.</b>	<b>469</b>
<b>LCP</b>					
	<b>LCP 120L</b>	<b>LCP, Natural Lumps</b>	<b>Natural</b>	<b>35,154 lbs.</b>	<b>39</b>
<b>PA612</b>					
	<b>PA612 FS</b>	<b>PA612, Florr Sweep</b>	<b>Color</b>	<b>488,978 lbs.</b>	<b>467</b>
<b>PA66</b>					
	<b>PA66 520RM</b>	<b>PA66, Mixed Color Pellets with Glass Fiber</b>	<b>Color</b>	<b>1,069,396 lbs.</b>	<b>892</b>
<b>PCTA</b>					
	<b>PCTA 120</b>	<b>PCTA, Natural Pellets</b>	<b>Natural</b>	<b>279,948 lbs.</b>	<b>295</b>
<b>PET</b>					
	<b>PET F 100</b>	<b>PET, Natural Pellets</b>	<b>Natural</b>	<b>343,346 lbs.</b>	<b>361</b>
<b>PETG</b>					
	<b>PETG 121</b>	<b>PETG, Off Natural Pellets</b>	<b>Off Natura</b>	<b>399,528 lbs.</b>	<b>419</b>
					<b>Total Box Count : 4661</b>



<b>D Section Summary</b>					
<b>Polymer</b>	<b>Grade</b>	<b>Description</b>	<b>Color</b>	<b>Weight</b>	<b>Total Rows</b>
<b>CA</b>					
	<b>CA 120L</b>	<b>CA, Natural Lumps</b>	<b>Natural</b>	<b>92,242 lbs.</b>	<b>119</b>
	<b>SMASE</b>	<b>CA, SMASE Powder</b>	<b>Natural</b>	<b>1,957 lbs.</b>	<b>2</b>
<b>CAB</b>					
	<b>CAB 120</b>	<b>CAB, Natural Contaminated Pellets In Drums</b>	<b>Natural</b>	<b>118,188 lbs.</b>	<b>155</b>
	<b>CAB 520P</b>	<b>CAB, Color Powder</b>	<b>Color</b>	<b>240,819 lbs.</b>	<b>300</b>
<b>CAP</b>					
	<b>CAP 520P</b>	<b>CAP, Color Powder</b>	<b>Color</b>	<b>177,364 lbs.</b>	<b>223</b>
<b>HTN</b>					
	<b>HTN 101RG</b>	<b>HTN, Natural Regrind</b>	<b>Natural</b>	<b>70,999 lbs.</b>	<b>75</b>
	<b>HTN 120L</b>	<b>HTN, Natural Lumps</b>	<b>Natural</b>	<b>53,193 lbs.</b>	<b>76</b>
	<b>HTN GF 301RG</b>	<b>HTN, Glass Filled Regrtind</b>	<b>Black</b>	<b>73,323 lbs.</b>	<b>77</b>
<b>LCP</b>					
	<b>LCP NG-125</b>	<b>LCP, Natural Pellets</b>	<b>Natural</b>	<b>36,779 lbs.</b>	<b>37</b>
<b>PA6</b>					
	<b>PA6 NG 120C</b>	<b>PA6, Copolymer Natural Pellets</b>	<b>Natural</b>	<b>44,563 lbs.</b>	<b>41</b>
<b>PA610</b>					
	<b>PA610 NG 120</b>	<b>PA610, Natural off color pellets</b>	<b>Natural</b>	<b>35,515 lbs.</b>	<b>35</b>
<b>PA612</b>					
	<b>PA612 NG 150</b>	<b>PA612, Natural pellets mixed with Selar</b>	<b>Natural</b>	<b>37,300 lbs.</b>	<b>39</b>
<b>PET</b>					
	<b>PET 100F</b>	<b>PET, Natural Fiber</b>	<b>Natural</b>	<b>32,657 lbs.</b>	<b>36</b>
	<b>PET 150</b>	<b>PET, Mixed with other Copolyester</b>	<b>Natural</b>	<b>131,090 lbs.</b>	<b>156</b>
	<b>PET 520B</b>	<b>PET, Mixed Color Bottles</b>	<b>Color</b>	<b>231,123 lbs.</b>	<b>272</b>
<b>PETG</b>					
	<b>PETG 521</b>	<b>PETG, Color Pellets for Export</b>	<b>Color</b>	<b>266,070 lbs.</b>	<b>358</b>
				<b>Total Box Count : 2001</b>	

<b>E Section Summary</b>					
<b>Polymer</b>	<b>Grade</b>	<b>Description</b>	<b>Color</b>	<b>Weight</b>	<b>Total Rows</b>
<b>ABS</b>					
	ABS 520P	ABS, Color Powder, Ash less then 5%	Color	396,517 lbs.	611
	ABS 521L	ABS, Mixed Color Lumps, can have SAN	Color	430,178 lbs.	475
	ABS 521P	ABS, Color Powder, Ash higher then 5%	Color	418,252 lbs.	466
<b>HTN</b>					
	HTN FS	HTN, Floor Sweep- can also have PA66	Color	1,004,820 lbs.	804
<b>PCTA</b>					
	PCTA 120	PCTA, Natural Pellets	Natural	514,382 lbs.	516
	PCTA 121	PCTA, Off Color Mixed Pellets, can have PET	Natural	457,196 lbs.	458
	PCTA 150	PCTA, Mixed Natural Pellets	Natural	139,940 lbs.	156
<b>PET</b>					
	PET 121L	PET Lumps, Natural	Natural	280,817 lbs.	478
	PET 521L	PRTG, Color Lumps	Color	702,003 lbs.	1003
	PETCO 520	PET, Mixed With Copolyester Pellets	Color	276,792 lbs.	328
<b>PETG</b>					
	PETG 121L	PETG, Natural Lumps	Natural	441,767 lbs.	630
	PETG 150	PETG, Mixed Natural Pellets	Natural	278,588 lbs.	310
	PETG 6763-100	PET, 6763 Natural Pellets	Natural	305,713 lbs.	305
				<b>Total Box Count :</b>	<b>6540</b>

F Section Summary					
Polymer	Grade	Description	Color	Weight	Total Rows
<b>CA</b>					
	CA 361P	Cellulose Acetate, Wood based Natural Powder	Natural	35,801 lbs.	42
	CA 520P	CA, Color Powder	Color	357,944 lbs.	478
	CA 561P	CA, Natural Powder	Natural	23,376 lbs.	36
	CA 971P	CA, Natural Powder, overs	Natural	73,141 lbs.	112
<b>CAB</b>					
	CAB 510P	CAB, Color Powder	Color	295,035 lbs.	390
	CAB 971P	CAB, Natural Powder, Overs	Natural	53,662 lbs.	76
<b>CAP</b>					
	CAP 120	CAP, Natural pellets with contamination in drums	Natural	27,535 lbs.	39
	CAP 510P	CAP, Color Powder	Color	274,510 lbs.	363
	CAP 971P	CAP, Natural Powder, Overs	Natural	55,024 lbs.	85
<b>HCR</b>					
	HCR C9	HCR, Natural Aromatic Resin	Natural	82,898 lbs.	119
<b>HTN</b>					
	HTN 120L	HTN, Natural Lumps	Natural	71,618 lbs.	78
	HTN GF 320L	HTN, Glass Filled Lumps	Black	61,168 lbs.	83
<b>HTN/PA66</b>					
	HTN/PA66	HTN, Mixed with PA66 Pellets	Color	179,034 lbs.	199
<b>PA66</b>					
	PA66 120L-C	PA66, Natural Lumps C Grade	Natural	64,582 lbs.	73
	PA66/PET AB 520C	PA66, Mixed with PET Fabric	Color	73,346 lbs.	82
					<b>Total Box Count : 2255</b>

**G Section Summary**

<b>Polymer Grade</b>	<b>Description</b>	<b>Color</b>	<b>Weight</b>	<b>Total Rows</b>
<b>ABS</b>				
ABS 520L	ABS, Color Lumps	Color	89,604 lbs.	112
ABS 521L	ABS, Mixed Color Lumps, can have SAN	Color	88,161 lbs.	126
<b>HTN</b>				
HTN 101RG	HTN, Natural Regrind	natural	72,526 lbs.	81
HTN FS	HTN, Floor Sweep- can also have PA66	Color	484,492 lbs.	482
<b>LCP</b>				
LCP GF 520L	LCP, Glass Filled Lumps	Color	30,791 lbs.	44
LCP GF-320	LCP, Glass Filled Black Pellets	Black	45,627 lbs.	43
LCP NG 125	LCP, Off Natural Pellets	Natural	78,600 lbs.	75
LCP NG-120	LCP, Natural Pellets	Natural	87,136 lbs.	79
<b>PA6</b>				
PA6 520L	PA6, Mixed Color Lumps	Color	146,156 lbs.	208
PA6 NG 120C	PA6, Copolymer Natural Pellets	Natural	81,515 lbs.	78
<b>PA66</b>				
PA66 520RM NB	PA66, Color Pellets with Fiber Glass, Not blended	Color	521,966 lbs.	523
PA66 AB 100C	PA66, Airbag Coated	Natural	76,871 lbs.	73
			<b>Total Box Count : 1924</b>	

<b>H Section Summary</b>					
<b>Polymer Grade</b>	<b>Description</b>	<b>Color</b>	<b>Weight</b>	<b>Total Rows</b>	
<b>CA</b>					
CA 120P	CA, Natural Powder In Drums	Natural	118,740 lbs.	158	
<b>CAB</b>					
CAB 520P	CAB, Color Powder	natural	102,038 lbs.	113	
<b>CAP</b>					
CAP 520P	CAP, Color Powder	Natural	71,080 lbs.	79	
<b>HCR</b>					
HCR 200	HCR, Aliphatic Resin	Natural	158,548 lbs.	227	
HCR 250	HCR, Amromatic and Aliphatic Resins	natural	85,670 lbs.	123	
HCR 700	HCR, Aromatic Resin	natural	215,129 lbs.	308	
HCR C5	HCR, C5 Aliphatic Resin	Natural	390,112 lbs.	557	
HCR C59	HCR, Aromatic and Aliphatic Mix	Natural	77,473 lbs.	113	
HCR C9	HCR, Natural Aromatic Resin	Natural	559,618 lbs.	804	
				<b>Total Box Count : 2482</b>	



**Material Safety Data Sheet**

**SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

**PHONE NUMBERS**

**PRODUCT IDENTIFICATION**

**PRODUCT TYPE: PPO**  
**PRODUCT GRADE:**  
NORYL 520L  
NORYL GF-520L

Polyphenylene ether [CASRN 25134-01-4]/High impact polystyrene [CASRN 9003-55-8]  
and/or polystyrene [CASRN 9003-53-6] blend

**PRODUCT DESCRIPTION:** Synthetic thermoplastic polymer.

**PRODUCT USE:** May be used to produce molded or extruded articles or as a component of other industrial products.

**SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS**

Components listed below are physical or health hazards as defined in the Hazard Communication Standard. The quantities represent typical or average values for the materials shown. Additional compositional data are provided in Section 15, REGULATORY INFORMATION, subject to supplier notification requirements.

<u>Component Name</u>	<u>%</u>	<u>CAS Number</u>	<u>OSHA PEL</u>	<u>ACGIH TWA</u>	<u>GE Recommended Exp. Limits</u>
GLASS	10-30	65997-17-3	No PEL Established	10 mg/m <sup>3</sup> (resp. fr.)	Not established

**SECTION 3: HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW:**



- Pellets with slight or no odor.
- Spilled material may create slipping hazard.
- Can burn in a fire creating dense toxic smoke.
- Molten plastic can cause severe thermal burns.
- Fumes produced during melt processing may cause eye, skin, and respiratory tract irritation. Severe over-exposure may result in nausea, headache, chills, and fever.
- Secondary operations ,such as grinding, sanding, or sawing can produce dust which may present an explosion or Respiratory hazard.

HMIS Ratings: Health = 0; Flammability = 1; Reactivity = 0; PPE = B

#### POTENTIAL HEALTH EFFECTS

**INGESTION:** No hazard in normal industrial use.  
**SKIN ABSORPTION:** No absorption hazard in normal industrial use.  
**EYECONTACT:** Can cause mechanical irritation if dusts are generated.  
**SKINCONTACT:** Unlikely to cause irritation even on repeated contact.

#### CHRONIC / CARCINOGENICITY

**NTP:** Not Tested.  
**OSHA:** Not Regulated.  
**IARC:** Not Listed.

**NOTE:** OSHA, IARC and/or NTP have listed carbon black and heavy metals, present in some colorants, as carcinogens. If these colorants are present in this product, they are shown in SECTION 2. These colorants are essentially bound to the plastic matrix and are unlikely to contribute to workplace exposure under recommended processing conditions.

Processing fumes may cause irritation to the eyes, skin, and respiratory tract. In cases of severe exposure, nausea and headache can also occur.

Grease-like processing fume condensates on ventilation ductwork, molds, and other surfaces can cause irritation and injury to skin.

**MEDICAL RESTRICTIONS:** There are no known human health effects aggravated by exposure to this product. However, certain sensitive individuals and individuals with respiratory impairments may be affected by exposure to components in the processing vapors.

#### **SECTION 4: FIRST AID MEASURES**

**EYES:** Immediately flush eyes with plenty of water. Get medical attention if irritation develops or persists. After initial flushing, remove any contact lenses.

**SKIN:** Wash with soap and water. Get medical attention if irritation develops or persists. For hot product, immediately immerse in or flush affected area with large amounts of cold water to dissipate heat .Cover with clean cotton sheeting or gauze and get prompt medical attention.



**INGESTION:** No hazard in normal industrial use. Do not induce vomiting. Seek medical attention if symptoms develop.

**INHALATION:** No specific treatment is necessary since this material is not likely to be hazardous by inhalation.

**PROCESSING FUMES:** Processing fumes inhalation may be irritating to the respiratory tract. If symptoms are experienced remove victim from the source of contamination or move victim to fresh air and obtain medical advice.

**SECTION 5: FIRE FIGHTING MEASURES**

**FIREFIGHTING:** Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products.

**EXTINGUISHING MEDIA:** Water spray and foam. Carbon dioxide and dry chemical are not recommended because their lack of cooling capacity may permit re-ignition.

**CONDITIONS OF FLAMMABILITY:** Requires a continuous flame source to ignite. AUTO

**IGNITION TEMPERATURE:** 490 C (914 F), estimated

**EXPLOSION DATA:** Material not sensitive to mechanical impact but is sensitive to static discharge under dust cloud conditions.

**HAZARDOUS COMBUSTION PRODUCTS:** Intense heat, smoke, carbon dioxide, carbon monoxide, hydrocarbon fragments

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**GENERAL:** Gather and store in a closed container pending a waste disposal evaluation. Allow molten material to solidify before disposal.

**SECTION 7: HANDLING AND STORAGE**

**HANDLING:** Follow recommendations on label and in processing guide. Prevent contact with skin and eyes. Use good industrial hygiene practices. Provide adequate ventilation. Secondary operations such as grinding, sanding, or sawing may produce a dust explosion hazard. Use aggressive housekeeping activities to prevent dust accumulation: employ bonding, grounding, venting, and explosion relief provisions in accordance with accepted engineering practices.

**STORAGE:** Store in a cool dry place. Avoid excessive heat and ignition sources.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**





**ENGINEERING CONTROLS:**

A continuous supply of fresh air to the work place together with removal of processing fumes through exhaust systems is recommended. Processing fume condensate may be a fire hazard and toxic; remove periodically from exhaust hoods, ductwork, and other surfaces using appropriate personal protection. Local ventilation requirements must be determined to limit exposure to processing fumes in the workplace.

**PERSONAL PROTECTION**

**EYE/FACE:**

Wear safety glasses with side shields or chemical goggles. In addition, use full-face shield when cleaning processing fume condensates from hoods, ducts, and other surfaces.

**SKIN:**

When handling pellets or powder, avoid prolonged or repeated contact with skin. Wear long pants, long sleeves, well insulated gloves, and a face shield during melt processing. Appropriate clothing - including chemical resistant gloves - should be worn to prevent contact with processing fumes condensate.

**RESPIRATORY:**

When using this product at elevated temperatures, implement engineering systems, administrative controls, or a respiratory protection program (including a respirator approved for protection from organic vapors, acid gases, and particulate matter) if processing fumes are not adequately controlled or operators experience symptoms of overexposure. If dust or powder is produced from secondary operations such as sawing or grinding, use a respirator approved for protection from dust.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**PHYSICAL STATE:**

Solid

**COLOR:**

Plastic pellet with slight odor.

**MELTING POINT:**

This product does not exhibit a sharp melting point but softens gradually over a wider range of temperatures.

**VAPOR PRESSURE (mmHg):**

Negligible. SPECIFIC

**GRAVITY (WATER= 1) :**

>1

**WATER SOLUBILITY:**

Insoluble.

**%VOLATILES:**

Negligible

**EVAPORATION RATE:**

Negligible.

**OCTANOL/WATER PARTITION COEFFICIENT:**

Not established

**SECTION 10: STABILITY AND REACTIVITY**

**STABILITY:**

Stable

**REACTIVITY:**

Not reactive under recommended conditions of handling, storage, processing, and use.



INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETY DATA SHEET

### CONDITIONS TO AVOID:

Do not exceed melt temperature recommendations in product literature. In order to avoid auto ignition/hazardous decomposition of hot thick masses of plastic, purging should be collected in small, flat, shapes or thin strands to allow for rapid cooling. Quench in water. Do not allow product to remain in barrel at elevated temperatures for extended periods of time: purge with a general purpose resin. (See Section 8 for respiratory protection advice.)

### HAZARDOUS DECOMPOSITION PRODUCTS

Processing fumes evolved at recommended processing conditions may include trace levels of the following materials: alkyl phenols, Aldehydes and alcohols, aliphatic amines, dimethylcyclohexanone, trimethylanisole, dihydrobenzofuran, styrene, 4-vinylcyclohexene, carbon dioxide, carbon monoxide



**SECTION 11: TOXICOLOGICAL INFORMATION**

**ACUTE HEALTH HAZARDS**

**ACUTEORAL:**

Oral LD50 Rat >15 g/kg Oral toxicity is estimated from tests on similar materials.

**EYECONTACT:**

Product not considered primary eye irritant. When similar products, in finely divided form, were placed into the eyes of rabbits, slight transient redness or discharge occurred. This is consistent with the expected slightly abrasive nature of the resin particles.

**SKINCONTACT:**

Product not considered primary skin irritant. Draize Skin Primary Irritation Score (Rabbit) for similar products, in finely divided form, for a 24-hour exposure is 0. Not expected to be a skin sensitizer based on results of Modified Buehler Guinea Pig Sensitization Test from similar products. Dermal LD50 (rabbit) > 2g/kg, estimated.

**SUBCHRONIC HEALTH HAZARDS**

**SUBCHRONICTOXICITY:**

In a 13 week dust inhalation study, laboratory rats were exposed to up to 50 Mg/m<sup>3</sup> PPO dusts for 6 hrs/day for 13 weeks with a 13-week non-exposure recovery period. There was no evidence of systemic toxicity at the highest dose. Localized toxicity was observed in the lungs and regional lymph nodes of the 50 mg/m<sup>3</sup> exposure group. These findings decreased in severity in the 7 and 1 mg/m<sup>3</sup> exposure groups. A no adverse effect level for PPO is estimated to be 7 mg/m<sup>3</sup> and a no observable effect level is 1 mg/m<sup>3</sup>.

**CHRONIC HEALTH HAZARDS CARCINOGENIC PROPERTIES**

**NTP:**

Not Tested.

**OSHA:**

Not Regulated.

**IARC:**

Not Listed.

**SECTION 12: ECOLOGICAL INFORMATION**

**GENERAL:**

This material is not expected to be harmful to the ecology.

**SECTION 13: DISPOSAL INFORMATION**

**WASTE DISPOSAL:**

Recycling is encouraged. Landfill or incinerate in accordance with federal, State and local requirements. Collected processing fume condensates and incinerator ash should be tested to determine waste classification.

**POSSIBLE EPA WASTE CODES:** No data.

**SECTION 14: TRANSPORTATION INFORMATION**

**REGULATORY STATUS:**

Not Regulated.

**SECTION 15: REGULATORY INFORMATION**

**TOXIC SUBSTANCES CONTROL ACT (TSCA):** This product is in compliance with all rules and orders of



INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETY DATA SHEET

TSCA.

WHMIS PRODUCT CLASSIFICATION:

Not a controlled product.

If any components in this product are SARA 313 listed as reportable, they are shown below. The quantities listed for elements represent typical or average values for compounds containing the element.

Component	CASNumber	%
No SARA 313-listed chemicals in this product.		

If any components in this product are known to the State of California to cause cancer and/or are reproductive hazards, they are listed below:

Component	Reason Listed	CASNumber	%
Not Applicable			
Toluene	developmental toxicity- initialdate1/1/91	108-88-3	0.01 -0.1

### SECTION 16: OTHER INFORMATION



# SAFETY DATA SHEET

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

**Product Type: PETG**

**Product Grade:**

PETG 121

PETG 120

PETG 6763-110

PETG 6763-111

**Relevant identified uses of the substance or mixture and uses advised against**

**Identified uses:** Plastics

**Uses advised against:** None known.

**Details of the supplier of the safety data sheet**

**Manufacturer / Supplier**

**Emergency telephone number: 410-675-5600**

## SECTION 2: Hazards Identification

**Hazard Classification:**

**OSHA Specified Hazards:**

Combustible dust

If converted to small particles during further processing, handling or by other means may form combustible dust concentrations in air.

**Warning label items including precautionary statement:**

**Signal Words:** WARNING

**Hazard Statement(s):** If converted to small particles during further processing, handling or by other means may form combustible dust concentrations in air.

**Precautionary Statement:**

**Disposal:** P501: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.



**Hazard(s) not otherwise classified (HNOC):**

None known.

**SECTION 3: Composition/information on ingredients**

**Substances / Mixtures**

**General information:**

Chemical name	Concentration	Additional Identification	Notes
copolyester	100%	CAS-No.: proprietary	

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

# This substance has workplace exposure limit(s).

**SECTION 4: First aid measures**

**Description of first aid measures**

**Inhalation:** Move to fresh air. Treat symptomatically. Get medical attention if symptoms persist.

**Eye contact:** Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention if symptoms persist. If molten material contacts the eye, immediately flush with plenty of water for at least 15 minutes. Get medical attention immediately.

**Skin Contact:** Wash with soap and water. Get medical attention if symptoms occur. If burned by contact with hot material, cool molten material adhering to skin as quickly as possible with water, and see a physician for removal of adhering material and treatment of burn. Get medical attention.

**Ingestion:** Seek medical advice.

**Most important symptoms and effects, both acute and delayed:** Burns should be treated as thermal burns. The material will come off as healing occurs; therefore, immediate removal from the skin is not necessary.

**Indication of any immediate medical attention and special treatment needed**

**Hazards:** Contact with molten substance/product may cause severe burns to skin and eyes.

**Treatment:** Treat symptomatically.

**SECTION 5: Firefighting measures**

**General Fire Hazards:** Material can accumulate static charges which may cause an electrical spark (ignition source). Use proper bonding and/or grounding procedures.

**Extinguishing media**

**Suitable extinguishing media:** Water spray. Dry chemical. Carbon Dioxide.

**Unsuitable extinguishing media:** None known.



**Special hazards arising from the substance or mixture:**

Powdered material may form explosive dust-air mixtures.

**Advice for firefighters**

**Special fire fighting procedures:**

Minimize dust generation and accumulation.

**Special protective equipment for fire-fighters:**

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**SECTION 6: Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:**

Wear appropriate personal protective equipment.

**Environmental Precautions:**

Not regarded as dangerous for the environment.

**Methods and material for containment and cleaning up:**

Sweep up and place in a clearly labeled container for chemical waste.

**Notification Procedures:**

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

**SECTION 7: Handling and storage:**

**Precautions for safe handling:**

Avoid contact with molten material. Minimize dust generation and accumulation.

**Conditions for safe storage, including any incompatibilities:**

Keep container closed.

**Specific end use(s):**

Plastics.

**SECTION 8: Exposure controls/personal protection**

**Control Parameters**

**Occupational Exposure Limits**

Country specific exposure limits have not been established or are not applicable unless listed below.

**Exposure controls**

**Appropriate engineering controls:**

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

**Individual protection measures, such as personal protective equipment**



<b>General Information:</b>	Eye bath. Washing facilities.
<b>Eyeface Protection:</b>	It is a good industrial hygiene practice to minimize eye contact. Wear a face shield when working with molten material.
<b>Skin protection</b>	
<b>Hand Protection:</b>	It is a good industrial hygiene practice to minimize skin contact. When material is heated, wear gloves to protect against thermal burns.
<b>Other:</b>	No data available.
<b>Respiratory Protection:</b>	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information.
<b>Hygiene measures:</b>	Observe good industrial hygiene practices.
<b>Environmental Controls:</b>	No data available.

## **SECTION 9: Physical and chemical properties**

### **Information on basic physical and chemical properties**

#### **Appearance**

<b>Physical State:</b>	Solid
<b>Form:</b>	Pellets
<b>Color:</b>	Colorless
<b>Odor:</b>	Slight
<b>Odor Threshold:</b>	No data available.
<b>pH:</b>	No data available.
<b>Softening Point:</b>	> 100 °C
<b>Boiling Point:</b>	No data available.
<b>Flash Point:</b>	not applicable, combustible solid
<b>Evaporation Rate:</b>	Not determined.
<b>Flammability (solid, gas):</b>	No data available.
<b>Flammability Limit - Upper (%)-:</b>	No data available.
<b>Flammability Limit - Lower (%)-:</b>	No data available.
<b>Vapor pressure:</b>	Not determined.
<b>Vapor density (air=1):</b>	No data available.
<b>Specific Gravity:</b>	> 1(estimated)
<b>Solubility(ies)</b>	
<b>Solubility in Water:</b>	Negligible
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Auto Ignition Temperature:</b>	No data available.





<b>Decomposition Temperature:</b>	Thermal stability not tested. Low stability hazard expected at normal operating temperatures.
<b>Dynamic Viscosity:</b>	No data available.
<b>Kinematic viscosity:</b>	Not determined.
<b>Explosive properties:</b>	No data available.
<b>Oxidizing properties:</b>	No data available.

**Other information**

<b>Minimum ignition temperature:</b>	454 °C (ASTM E659)
--------------------------------------	--------------------

**SECTION 10: Stability and reactivity**

<b>Reactivity:</b>	None known.
<b>Chemical Stability:</b>	Stable
<b>Possibility of Hazardous Reactions:</b>	None known.
<b>Conditions to Avoid:</b>	None at ambient temperatures.
<b>Incompatible Materials:</b>	Strong oxidizing agents.
<b>Hazardous Decomposition Products:</b>	Carbon Monoxide. Carbon Dioxide.

**SECTION 11: Toxicological information**

**Information on likely routes of exposure**

<b>Inhalation:</b>	None known.
<b>Ingestion:</b>	None known.
<b>Skin Contact:</b>	Molten material will produce thermal burns.
<b>Eye contact:</b>	Molten material will produce thermal burns.

**Information on toxicological effects**

**Acute Toxicity**

<b>Oral Product:</b>	No data available.
<b>Specified substance(s) copolyester</b>	Oral LD-50: (Rat): > 3,200 mg/kg
<b>Dermal Product:</b>	No data available.
<b>Specified substance(s) copolyester</b>	Dermal LD-50: (Guinea Pig): > 1,000 mg/kg
<b>Inhalation Product:</b>	No data available.



<b>Specified substance(s)</b> copolyester	No data available.
<b>Repeated Dose Toxicity</b> <b>Product:</b>	No data available.
<b>Specified substance(s)</b> copolyester	No data available.
<b>Skin Corrosion/Irritation:</b> <b>Product:</b>	No data available.
<b>Specified substance(s)</b> copolyester	(Guinea Pig, 24 h): Slight
<b>Serious Eye Damage/Eye Irritation:</b> <b>Product:</b>	No data available.
<b>Specified substance(s)</b> copolyester	unwashed eyes (Rabbit): Slight washed eyes (Rabbit): Slight
<b>Respiratory or Skin Sensitization:</b> <b>Product:</b>	No data available.
<b>Specified substance(s)</b> copolyester	Skin Sensitization:, (Guinea Pig) - non-sensitizing
<b>Mutagenicity</b>	
<b>In vitro</b> <b>Product:</b>	No data available.
<b>Specified substance(s)</b> copolyester	No data available.
<b>In vivo</b> <b>Product:</b>	No data available.
<b>Specified substance(s)</b> copolyester	No data available.
<b>Carcinogenicity</b> <b>Product:</b>	No data available.
<b>Specified substance(s)</b> copolyester	No data available.
<b>Reproductive Toxicity</b> <b>Product:</b>	No data available.
<b>Specified substance(s)</b> copolyester	No data available.
<b>Specific Target Organ Toxicity - Single Exposure</b> <b>Product:</b>	No data available.



INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETY DATA SHEET

Specified substance(s)



copolyester No data available.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** No data available.

**Specified substance(s)**  
copolyester No data available.

**Aspiration Hazard**

**Product:** No data available.

**Specified substance(s)**  
copolyester No data available.

**Other Adverse Effects:** No data available.

**SECTION 12: Ecological information**

**Toxicity**

**Acute toxicity**

**Fish**

**Product:** No data available.

**Specified substance(s)**  
copolyester LC-50 (Fathead Minnow, 96 h): > 100 mg/l (highest concentration tested)

**Aquatic Invertebrates**

**Product:** No data available.

**Specified substance(s)**  
copolyester LC-50 (daphnid, 96 h): > 100 mg/l (highest concentration tested)  
LC-50 (snail, 96 h): > 100 mg/l (highest concentration tested)  
LC-50 (flatworm, 96 h): > 100 mg/l (highest concentration tested)

**Chronic Toxicity**

**Fish**

**Product:** No data available.

**Specified substance(s)**  
copolyester No data available.

**Aquatic Invertebrates**

**Product:** No data available.

**Specified substance(s)**  
copolyester No data available.

**Toxicity to Aquatic Plants**

**Product:** No data available.

**Specified substance(s)**  
copolyester No data available.

**Persistence and Degradability**

**Biodegradation**

**Product:** No data available.



**Specified substance(s)**  
copolyester No data available.

**Biological Oxygen Demand:**  
Product No data available.

**Specified substance(s)**  
copolyester No data available.

**Chemical Oxygen Demand:**  
Product No data available.

**Specified substance(s)**  
copolyester No data available.

**BOD/COD Ratio**  
Product No data available.

**Specified substance(s)**  
copolyester No data available.

**Bioaccumulative Potential**  
Product: No data available.

**Specified substance(s)**  
copolyester No data available.

**Mobility in Soil:** No data available.

**Known or predicted distribution to environmental compartments**  
copolyester No data available.

**Results of PBT and vPvB**  
**assessment:** No data available.

copolyester No data available.

**Other Adverse Effects:** No data available.

### SECTION 13: Disposal considerations

#### Waste treatment methods

**General Information:** No data available.

**Disposal methods:** Dispose of waste and residues in accordance with local authority requirements. Incinerate.

### SECTION 14: Transport information

*Important Note: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Consult your company's Hazardous Materials/Dangerous Goods expert for information specific to your situation.*

**DOT**

Class not regulated



**IMDG - International Maritime Dangerous Goods Code**  
Class not regulated

**IATA**  
Class not regulated

### SECTION 15: Regulatory information

**Safety, health and environmental regulations/legislation specific for the substance or mixture:**

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

**WHMIS (Canada) Status:** non controlled

**SARA 311-312 Hazard Classification(s):**  
fire hazard

**US EPCRA (SARA Title III) Section 313 - Toxic Chemical List**  
NONE

**OSHA:**hazardous

**TSCA (US Toxic Substances Control Act):** This product is listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

**DSL (Canadian Domestic Substances List) and CEPA (Canadian Environmental Protection Act):** All components of this product are listed on the DSL. Any impurities present in this product are exempt from listing.

**AICS / NICNAS (Australian Inventory of Chemical Substances and National Industrial Chemicals Notification and Assessment Scheme):** All components of this product are listed on AICS or otherwise comply with NICNAS.

**MITI (Japanese Handbook of Existing and New Chemical Substances):** All components of this product are listed in the Handbook or have been approved in Japan by new substance notification.

**ECL (Korean Toxic Substances Control Act):** All components of this product are listed on the Korean inventory or otherwise comply with the Korean Toxic Substances Control Act.

### SECTION 16: Other information

**HMIS® Hazard Ratings:**

Health - 1, Flammability - 1, Chemical Reactivity - 0



---

## MATERIAL SAFETY DATA SHEET, PET

<b>Section 1</b>	<b>Product and Company Identification</b>
------------------	---

IEI Plastics

### Material Identification

**Product Name:** PET

**Chemical Name:** POLYETHYLENE TEREPHTHALATE (PET)

**Product Grade:**

**PET 521L**  
**PET 121L**  
**PET F-120**  
**PET LR-120**  
**PET B-111**  
**PET F-110**  
**PET F-100RG**  
**PET F-300RG**  
**PET MAU**  
**PET TOW**  
**PET B-110**  
**PET 100F**  
**PET**  
**GREEN/NATURAL**  
**FLAKE**

**CAS Number:** 25038-59-9

**Product Use:** Thermoplastic for fabrication.

<b>Section 2</b>	<b>Composition/Information on Ingredients</b>
------------------	---

Composition is not hazardous.

<b>Section 3</b>	<b>Hazards Identification</b>
------------------	-------------------------------

**Ingestion:** Not a probable route of exposure.

**Skin:** Molten material will cause thermal burns.

**Eye:** Mechanical irritation only.

**Inhalation:** Stock shapes are not respirable, avoid breathing dust, as fine particles can be inhaled and retained in the lungs.

<b>Section 4</b>	<b>First Aid Measures</b>
------------------	---------------------------

If exposed to fumes from overheating, move to fresh air. Consult a physician if symptoms persist.

Wash skin with soap and plenty of water.

Flush eyes with water. Consult a physician if symptoms persist.

If molten material contacts skin, cool rapidly with cold water. Do not attempt to peel material from skin. Obtain medical attention to thermal burn.

**Chronic effects:** None known



---

## MATERIAL SAFETY DATA SHEET, PET

### Section 5 Fire Fighting Measures

**Flash ignition temperature:** 350°C / 662°F

**Method:** ASTM D-1929

**Unusual fire, explosion hazards:** None known.

**Hazardous combustion products:** At temperatures above 350°C / 662°F, heavy fuming, carbon dioxide and carbon monoxide will occur.

**Special fire fighting instructions:** Fire fighters and others exposed to products of combustion should wear full protective clothing including self-contained breathing apparatus. Firefighting equipment should be thoroughly decontaminated after use.

**Extinguishing media:** Water spray or any class an extinguishing agent.

### Section 6 Accidental Release Measures

**Spill or release:** Clean up by vacuuming or sweeping to prevent falls.

### Section 7 Handling and Storage

Practice reasonable care and caution in handling.

### Section 8 Exposure Controls/Personal Protection

**Eye:** Safety glasses are recommended to prevent particulate matter from entering eyes while grinding or machining.

**Skin:** Protective gloves are required when handling hot polymer. Also, long sleeve cotton shirt and long pants if handling molten polymer.

**Ventilation:** Local exhaust at processing equipment to assure that particulate levels are kept at recommended levels.

**Respirator:** None under normal processing, if ventilation is adequate.

### Section 9 Physical and Chemical Properties

**Appearance:** Stock shape may be rod, plate or tube form.

**Odor:** Essentially odorless.

**Melting point:** 225-260°C / 437-500°F

**Solubility in water:** Insoluble

**Volatile content %:** <1%

**Specific gravity:** 1.33-1.43

### Section 10 Stability and Reactivity

**Stability at room temperature:** Stable

**Materials to avoid:** Strong oxidants and bases.

**Conditions to avoid:** None known.





---

## MATERIAL SAFETY DATA SHEET, PET

<b>Section 11</b>	<b>Toxicological Information</b>
-------------------	----------------------------------

**Chronic toxicity:** PET does not appear to possess any toxicological properties.  
**Medical conditions prone to aggravation by exposure:** None known.  
**Carcinogenicity:** None known.

<b>Section 12</b>	<b>Ecological Information</b>
-------------------	-------------------------------

**Aquatic toxicity:** Toxicity is expected to be low based on insolubility of polymer in water.

<b>Section 13</b>	<b>Disposal Considerations</b>
-------------------	--------------------------------

**Spill or release:** Clean up by vacuuming or wet sweeping to minimize dust exposure.  
**Waste disposal:** Landfill or incineration in compliance with federal, state, and local regulations.

<b>Section 14</b>	<b>Transport Information</b>
-------------------	------------------------------

**Hazard class:** NA  
**Shipping name:** NA

<b>Section 15</b>	<b>Regulatory Information</b>
-------------------	-------------------------------

NA

<b>Other Information</b>
--------------------------



INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETY DATA SHEET

Product Name: PEC  
Product Grade: PEC 120RG

### Company Identification

MANUFACTURER/DISTRIBUTOR

PHONE NUMBERS: 410-674-5600

### Components

Material	CAS Number	%
ETHYLENE/METHACRYLIC ACID COPOLYMERS, PARTIAL ZINC SALT		>99
*ZINC COMPOUNDS	7440-66-6	<5

\* Disclosure as a toxic chemical is required under Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR parts 372.

### Potential Health Effects

#### ADDITIONAL HEALTH EFFECTS

Before using "PEC" Packaging Resins, read the bulletin on the safe handling of these polymers.

No information available for this "PEC" Ionomer Resin or for the ethylene copolymer partial metal salt. Based on its similarity to other polymers, this "PEC" resin is predicted to have low toxicity.

### Carcinogenicity Information

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

### First Aid

#### INHALATION

No specific intervention is indicated as the compound is not likely to be hazardous by inhalation. Consult a physician if necessary.

#### SKIN CONTACT

The compound is not likely to be hazardous by skin contact but cleansing the skin after use is advisable.

#### EYE CONTACT

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.



**(FIRST AID MEASURES - Continued)**

**INGESTION**

No specific intervention is indicated as compound is not likely to be hazardous by ingestion.  
Consult a physician if necessary.

**Flammable Properties**

Hazardous gases/vapors produced in fire are carbon monoxide, hydrocarbon oxidation products, including organic acids, Aldehydes, alcohols, and zinc or sodium oxides.

**Fire and Explosion Hazards:**

The solid polymer can be combusted only with difficulty.

**Extinguishing Media**

Water, Foam, Dry Chemical, CO2.

**Fire Fighting Instructions**

Keep personnel removed and upwind of fire.  
breathing apparatus.

Wear self-contained

Use self-contained breathing apparatus if exposed to fumes.

**Safeguards (Personnel)**

**NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL)**

sections before proceeding with clean-up.

Use appropriate

PERSONAL PROTECTIVE EQUIPMENT during clean-up.

**Spill Clean Up**

Recover undamaged and minimally contaminated material for reuse and reclamation.

Sweep up to avoid slipping hazard.

**Handling (Personnel)**

See FIRST AID and PERSONAL PROTECTIVE EQUIPMENT SECTIONS.

**Storage**

Store in a cool, dry place.  
contamination.

Keep container closed to prevent

**Engineering Controls**

**VENTILATION:** Local ventilation should be used over processing equipment.

**Personal Protective Equipment EYE/FACE**

**PROTECTION**

Wear safety glasses.

when possibility exists for eye and face contact due to splashing or spraying of molten material.

Wear coverall chemical splash goggles and face shield

A full face mask respirator provides protection from

eye irritation.



#### RESPIRATORS

A NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge with a dust/mist canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

#### PROTECTIVE CLOTHING

If there is potential contact with hot/molten material, wear heat resistant clothing and footwear.

#### Exposure Guidelines

##### Exposure Limits

PEL (OSHA)

: Particulates (Not Otherwise Regulated)  
15 mg/m<sup>3</sup>, 8 Hr. TWA, total dust  
5 mg/m<sup>3</sup>, 8 Hr. TWA, respirable dust

#### Physical Data

Melting Point : 80-100 C (176-212 F)  
% Volatiles : Negligible  
Solubility in Water : Negligible  
Odor : Mild methacrylic acid  
Form : Pellets  
Color : White or pigmented  
Specific Gravity : NA

#### Chemical Stability

Stable at normal temperatures and storage conditions.

#### Incompatibility with Other Materials

Incompatible or can react with oxidizing agents.

#### Decomposition

Decomposes with heat.

Decomposition temperature: 325 C (617 F)

Hazardous gases or vapors can be released, including carbon monoxide, and, hydrocarbon oxidation products, including, organic acids, Aldehydes, and, alcohols.

#### Polymerization

Polymerization will not occur.

#### Ecotoxicological Information

##### AQUATIC TOXICITY:

No information is available.  
water.

Toxicity is expected to be low based on insolubility in



INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETY DATA SHEET

### Waste Disposal

Preferred options for disposal are (1) recycling, (2) incineration with energy recovery, and (3) landfill. The high fuel value of this product makes option 2 very desirable for material that cannot be recycled. Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations.



# SAFETY DATA SHEET

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

**Product name:** PCTG

**Product Grades:**

PCTG 120  
TRITAN MAU  
PCTG 120B  
PCTG 011-110  
TRITAN 120RG  
TRITAN 120  
TRITAN 120B

**Relevant identified uses of the substance or mixture and uses advised against**

**Identified uses:** Plastics

**Uses advised against:** None known.

**Details of the supplier of the safety data sheet**

**Manufacturer / Supplier**

Emergency telephone number: 410-674-5600

## SECTION 2: Hazards identification

**Hazard classification:**

**OSHA Specified Hazards:**

Combustible dust

If converted to small particles during further processing, handling or by other means may form combustible dust concentrations in air.

**Warning label items including precautionary statement:**

**Signal words:** WARNING!

**Hazard Statement(s):** If converted to small particles during further processing, handling or by other means may form combustible dust concentrations in air.

**Precautionary statement:**



INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETY DATA SHEET

**Disposal:**

P501: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.



**Hazard(s) not otherwise classified (HNOC):** None known.

**SECTION 3: Composition/information on ingredients**

**Substances / Mixtures**

**General information:**

Chemical name	Concentration	Additional identification	Notes
copolyester	>90%	CAS-No.: proprietary	
modifiers/additives	<10%	CAS-No.: proprietary	

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.  
This substance has workplace exposure limit(s).

**SECTION 4: First aid measures**

**Description of first aid measures**

**Inhalation:** Move to fresh air. Treat symptomatically. Get medical attention if symptoms persist.

**Eye contact:** Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention if symptoms persist. If molten material contacts the eye, immediately flush with plenty of water for at least 15 minutes. Get medical attention immediately.

**Skin contact:** Wash with soap and water. Get medical attention if symptoms occur. If burned by contact with hot material, cool molten material adhering to skin as quickly as possible with water, and see a physician for removal of adhering material and treatment of burn. Get medical attention.

**Ingestion:** Seek medical advice.

**Most important symptoms and effects, both acute and delayed:** Burns should be treated as thermal burns. The material will come off as healing occurs; therefore, immediate removal from the skin is not necessary.

**Indication of any immediate medical attention and special treatment needed**

**Hazards:** Contact with molten substance/product may cause severe burns to skin and eyes.

**Treatment:** Treat symptomatically.

**SECTION 5: Firefighting measures**

**General fire hazards:** Material can accumulate static charges which may cause an electrical spark (ignition source). Use proper bonding and/or grounding procedures.

**Extinguishing media**

**Suitable extinguishing media:** Water spray. Dry chemical. Carbon Dioxide.





**Unsuitable extinguishing media:**

None known.

**Special hazards arising from the substance or mixture:**

Powdered material may form explosive dust-air mixtures.

**Advice for firefighters**

**Special fire fighting procedures:**

Minimize dust generation and accumulation.

**Special protective equipment for fire-fighters:**

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

### **SECTION 6: Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:**

Wear appropriate personal protective equipment.

**Environmental precautions:**

Not regarded as dangerous for the environment.

**Methods and material for containment and cleaning up:**

Sweep up and place in a clearly labeled container for chemical waste.

**Notification Procedures:**

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

### **SECTION 7: Handling and storage:**

**Precautions for safe handling:**

Avoid contact with molten material. Minimize dust generation and accumulation.

**Conditions for safe storage, including any incompatibilities:**

Keep container closed.

**Specific end use(s):**

Plastics.

### **SECTION 8: Exposure controls/personal protection**

**Control parameters**

**Occupational exposure limits**

Country specific exposure limits have not been established or are not applicable unless listed below.

**Exposure controls**

**Appropriate engineering controls:**

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.



**Individual protection measures, such as personal protective equipment**

<b>General information:</b>	Eye bath. Washing facilities.
<b>Eye/face protection:</b>	It is a good industrial hygiene practice to minimize eye contact. Wear a face shield when working with molten material.
<b>Skin protection</b>	
<b>Hand protection:</b>	It is a good industrial hygiene practice to minimize skin contact. When material is heated, wear gloves to protect against thermal burns.
<b>Other:</b>	No data available.
<b>Respiratory Protection:</b>	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information.
<b>Hygiene measures:</b>	Observe good industrial hygiene practices.
<b>Environmental Controls:</b>	No data available.

**SECTION 9: Physical and chemical properties**

**Information on basic physical and chemical properties**

**Appearance**

<b>Physical State:</b>	Solid
<b>Form:</b>	Pellet
<b>Color:</b>	varies with product
<b>Odor:</b>	Slight
<b>Odor Threshold:</b>	Not determined.
<b>pH:</b>	No data available.
<b>Melting Point</b>	varies with formulation
<b>Boiling Point:</b>	No data available.
<b>Flash Point:</b>	not applicable, combustible solid
<b>Evaporation Rate:</b>	Not determined.
<b>Flammability (solid, gas):</b>	No data available.
<b>Flammability Limit - Upper (%)-:</b>	No data available.
<b>Flammability Limit - Lower (%)-:</b>	No data available.
<b>Vapor pressure:</b>	Not determined.
<b>Vapor density (air=1):</b>	No data available.
<b>Specific Gravity:</b>	> 1 (estimated)
<b>Solubility(ies)</b>	
<b>Solubility in Water:</b>	Negligible
<b>Solubility (other):</b>	No data available.



<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Auto ignition Temperature:</b>	No data available.
<b>Decomposition Temperature:</b>	Thermal stability not tested. Low stability hazard expected at normal operating temperatures.
<b>Dynamic Viscosity:</b>	No data available.
<b>Kinematic viscosity:</b>	Not determined.
<b>Explosive properties:</b>	No data available.
<b>Oxidizing properties:</b>	No data available.

### SECTION 10: Stability and reactivity

<b>Reactivity:</b>	None known.
<b>Chemical stability:</b>	Stable
<b>Possibility of hazardous reactions:</b>	None known.
<b>Conditions to avoid:</b>	None at ambient temperatures.
<b>Incompatible materials:</b>	Strong oxidizing agents.
<b>Hazardous decomposition products:</b>	Carbon Monoxide. Carbon Dioxide.

### SECTION 11: Toxicological information

#### Information on likely routes of exposure

<b>Inhalation:</b>	None known.
<b>Ingestion:</b>	None known.
<b>Skin contact:</b>	Molten material will produce thermal burns.
<b>Eye contact:</b>	Molten material will produce thermal burns.

#### Information on toxicological effects

##### Acute Toxicity

###### Oral

**Product:** No data available.

###### Specified substance(s)

**copolyester** Oral LD-50: (Rat): > 3,200 mg/kg  
**modifiers/additives** No data available.

###### Dermal

**Product:** No data available.

###### Specified substance(s)

**copolyester** Dermal LD-50: (Guinea Pig): > 1,000 mg/kg  
**modifiers/additives** No data available.

###### Inhalation

**Product:** No data available.



**Specified substance(s)**

copolyester  
modifiers/additives

No data available.

No data available.

**Repeated dose toxicity**

**Product:**

No data available.

**Specified substance(s)**

copolyester  
modifiers/additives

No data available.

No data available.

**Skin corrosion/irritation:**

**Product:**

No data available.

**Specified substance(s)**

copolyester  
modifiers/additives

(Guinea Pig, 24 h): Slight

No data available.

**Serious eye damage/eye**

**irritation:**

**Product:**

No data available.

**Specified substance(s)**

copolyester

unwashed eyes (Rabbit): Slight

washed eyes (Rabbit): Slight

modifiers/additives

No data available.

**Respiratory or skin  
sensitization:**

**Product:**

No data available.

**Specified substance(s)**

copolyester

Skin Sensitization: (Guinea Pig) - non-sensitizing

modifiers/additives

No data available.

**Mutagenicity**

**In vitro**

**Product:**

No data available.

**Specified substance(s)**

copolyester

No data available.

modifiers/additives

No data available.

**In vivo**

**Product:**

No data available.

**Specified substance(s)**

copolyester

No data available.

modifiers/additives

No data available.

**Carcinogenicity**

**Product:**

No data available.

**Specified substance(s)**

copolyester

No data available.

modifiers/additives

No data available.



**Reproductive toxicity**

**Product:** No data available.

**Specified substance(s)**  
copolyester No data available.  
modifiers/additives No data available.

**Specific target organ toxicity - single exposure**

**Product:** No data available.

**Specified substance(s)**  
copolyester No data available.  
modifiers/additives No data available.

**Specific target organ toxicity - repeated exposure**

**Product:** No data available.

**Specified substance(s)**  
copolyester No data available.  
modifiers/additives No data available.

**Aspiration hazard**

**Product:** No data available.

**Specified substance(s)**  
copolyester No data available.  
modifiers/additives No data available.

**Other adverse effects:** No data available.

**SECTION 12: Ecological information**

**Toxicity**

**Acute toxicity**

**Fish**

**Product:** No data available.

**Specified substance(s)**  
copolyester LC-50 (Fathead Minnow, 96 h): > 100 mg/l (highest concentration tested)  
modifiers/additives No data available.

**Aquatic invertebrates**

**Product:** No data available.

**Specified substance(s)**  
copolyester LC-50 (daphnid, 96 h): > 100 mg/l (highest concentration tested)  
LC-50 (snail, 96 h): > 100 mg/l (highest concentration tested)  
LC-50 (flatworm, 96 h): > 100 mg/l (highest concentration tested)  
modifiers/additives No data available.

**Chronic Toxicity**

**Fish**

**Product:** No data available.

**Specified substance(s)**  
copolyester No data available.  
modifiers/additives No data available.



**Aquatic Invertebrates**

**Product:** No data available.

**Specified substance(s)**

copolyester No data available.

modifiers/additives No data available.

**Toxicity to Aquatic Plants**

**Product:** No data available.

**Specified substance(s)**

copolyester No data available.

modifiers/additives No data available.

**Persistence and degradability**

**Biodegradation**

**Product:** No data available.

**Specified substance(s)**

copolyester No data available.

modifiers/additives No data available.

**Biological Oxygen Demand:**

**Product** No data available.

**Specified substance(s)**

copolyester No data available.

modifiers/additives No data available.

**Chemical Oxygen Demand:**

**Product** No data available.

**Specified substance(s)**

copolyester No data available.

modifiers/additives No data available.

**BOD/COD ratio**

**Product** No data available.

**Specified substance(s)**

copolyester No data available.

modifiers/additives No data available.

**Bioaccumulative potential**

**Product:** No data available.

**Specified substance(s)**

copolyester No data available.

modifiers/additives No data available.

**Mobility in soil:**

No data available.

**Known or predicted distribution to environmental compartments**

copolyester No data available.

modifiers/additives No data available.



**Results of PBT and vPvB assessment:** No data available.

copolyester No data available.  
modifiers/additives No data available.

**Other adverse effects:** No data available.

### **SECTION 13: Disposal considerations**

#### **Waste treatment methods**

**General information:** No data available.

**Disposal methods:** Dispose of waste and residues in accordance with local authority requirements. Incinerate.

### **SECTION 14: Transport information**

*Important Note: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Consult your company's Hazardous Materials/Dangerous Goods expert for information specific to your situation.*

**DOT**  
Class not regulated

**IMDG - International Maritime Dangerous Goods Code**  
Class not regulated

**IATA**  
Class not regulated

### **SECTION 15: Regulatory information**

**Safety, health and environmental regulations/legislation specific for the substance or mixture:**

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

**WHMIS (Canada) Status:** non controlled

**SARA 311-312 Hazard Classification(s):**  
fire hazard

**US EPCRA (SARA Title III) Section 313 - Toxic Chemical List**  
NONE

**OSHA:** hazardous



**TSCA (US Toxic Substances Control Act):** All components of this product are listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

**DSL (Canadian Domestic Substances List) and CEPA (Canadian Environmental Protection Act):** All components of this product are listed on the DSL. Any impurities present in this product are exempt from listing.

**AICS / NICNAS (Australian Inventory of Chemical Substances and National Industrial Chemicals Notification and Assessment Scheme):** All components of this product are listed on AICS or otherwise comply with NICNAS.

**MITI (Japanese Handbook of Existing and New Chemical Substances):** All components of this product are listed in the Handbook or have been approved in Japan by new substance notification.

**ECL (Korean Toxic Substances Control Act):** All components of this product are listed on the Korean inventory or otherwise comply with the Korean Toxic Substances Control Act.

**Philippines Inventory (PICCS):** All components of this product are listed on the Philippine inventory or otherwise comply with PICCS.

**Inventory of Existing Chemical Substances In China:** All components of this product are listed on the Inventory of Existing Chemical Substances in China (IECSC).

## SECTION 16: Other information

**HMIS® Hazard Ratings:** Health - 1, Flammability - 1, Chemical Reactivity - 0

*HMIS® rating involves data interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this MSDS must be considered.*

**Revision Information:** New SDS

**Key literature references and sources for data:** No data available.

**Training information:** No data available.

**Issue date:** 10/31/2014

**SDS No.:**

**Disclaimer:** This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.





# SAFETY DATA SHEET

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

**Product name:** PCTA

**Product Grade:**

PCTA 120

PCTA AN004

**Synonyms, Trade Names:** not applicable

**Relevant identified uses of the substance or mixture and uses advised against**

**Identified uses:** Plastics

**Uses advised against:** None known.

**Details of the supplier of the safety data sheet**

**Manufacturer / Supplier**

**Emergency telephone number:** 41-0674-5600

## SECTION 2: Hazards identification

**Hazard Classification:**

**OSHA Specified Hazards:**

Combustible dust

If converted to small particles during further processing, handling or by other means may form combustible dust concentrations in air.

**Warning label items including precautionary statement:**

**Signal Words:** WARNING!

**Hazard Statement(s):** If converted to small particles during further processing, handling or by other means may form combustible dust concentrations in air.

**Precautionary Statement:**

**Disposal:** P501: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.



Hazard(s) not otherwise classified (HNOC): None known.

### SECTION 3: Composition/Information on ingredients

#### Substances / Mixtures

##### General information:

Chemical name	Concentration	Additional identification	Notes
copolyester	>90%	CAS-No.: proprietary	
modifiers/additives	<10%	CAS-No.: proprietary	

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

# This substance has workplace exposure limit(s).

### SECTION 4: First aid measures

#### Description of first aid measures

**Inhalation:** Move to fresh air. Treat symptomatically. Get medical attention if symptoms persist.

**Eye contact:** Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention if symptoms persist. If molten material contacts the eye, immediately flush with plenty of water for at least 15 minutes. Get medical attention immediately.

**Skin Contact:** Wash with soap and water. Get medical attention if symptoms occur. If burned by contact with hot material, cool molten material adhering to skin as quickly as possible with water, and see a physician for removal of adhering material and treatment of burn. Get medical attention.

**Ingestion:** Seek medical advice.

**Most important symptoms and effects, both acute and delayed:** Burns should be treated as thermal burns. The material will come off as healing occurs; therefore, immediate removal from the skin is not necessary.

#### Indication of any immediate medical attention and special treatment needed

**Hazards:** Contact with molten substance/product may cause severe burns to skin and eyes.

**Treatment:** Treat symptomatically.

### SECTION 5: Firefighting measures

**General Fire Hazards:** Material can accumulate static charges which may cause an electrical spark (ignition source). Use proper bonding and/or grounding procedures.

#### Extinguishing media

**Suitable extinguishing media:** Water spray. Dry chemical. Carbon Dioxide.



INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETY DATA SHEET

Product Type: PBT Glass Mineral Filled  
Product Grade:

PBT G30-310  
PBT G15-310

### Company Identification

MANUFACTURER/DISTRIBUTOR

PHONE NUMBERS: 410-674-5600

### # Components

Material	CAS Number	%
POLYBUTYLENE TEREPHTHALATE	30965-26-5	>65
FIBERGLASS		5-40
COLORANTS, LUBRICANTS, STABILIZERS		<2
CARBON BLACK	1333-86-4	0-

### Components (Remarks)

Material is not known to contain Toxic Chemicals under Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

Additives in this product do not present a respiration hazard unless the product is ground to a powder of respirable size and the dust is inhaled. All dusts are potentially injurious to the respiratory tract if respirable particles are generated and inhaled in sufficiently high concentrations. Good industrial hygiene practices, as with all dusts, should include precautions to prevent inhalation of respirable particles.

### Potential Health Effects

#### POLYBUTYLENE TEREPHTHALATE

Eye contact with Polybutylene Terephthalate particles may cause mechanical irritation with discomfort, tearing, or blurring of vision.

Decomposition products caused by overheating Polybutylene Terephthalate may cause skin, eye or respiratory tract irritation.

#### FIBER GLASS

The mechanical action of the sharp fibers from Fiber Glass may cause skin irritation with discomfort or rash.

Eye contact with Fiber Glass particles may cause mechanical eye irritation with discomfort, tearing, or blurring of vision.

Inhalation of Fiber Glass particles may cause irritation of the upper respiratory passages, with coughing and discomfort.



INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETY DATA SHEET

Results from epidemiology studies suggest no causal relationship between Fiber Glass exposure and cancer. One epidemiology study does indicate a slight increase in lung cancer deaths.

The evidence that fiber glass is related to these increased lung cancer deaths is considered weak.

### (HAZARDS IDENTIFICATION - Continued)

Individuals with preexisting diseases of the lungs may have increased susceptibility to the toxicity of excessive exposures.

#### CARBON BLACK

Immediate effects of overexposure to Carbon Black by inhalation may include irritation of the nose, throat, and lungs with cough, difficulty breathing or shortness of breath.

If particles from Carbon Black contact the eye, mechanical irritation with tearing, pain or blurred vision may result.

Significant skin permeation, and systemic toxicity, after contact with Carbon Black appears unlikely. There are no reports of human sensitization.

Epidemiologic studies demonstrate no significant risk of human cancer from exposure to Carbon Black. While some reports cite an increased incidence of pulmonary abnormalities, such as decreased pulmonary function and radiological changes among Carbon Black workers, other reports show no correlation between exposure and effects on pulmonary function or disease.

Increased susceptibility to the effects of Carbon Black may be observed in persons with pre-existing disease of the lungs.

#### Carcinogenicity Information

The following components are listed by IARC, NTP, OSHA or ACGIH as carcinogens.

Material  
CARBON BLACK

IARC NTP OSHA ACGIH  
2B

#### First Aid

##### INHALATION

No specific intervention is indicated as the compound is not likely to be hazardous by inhalation. Consult a physician if necessary. If exposed to fumes from overheating or combustion, move to fresh air. Consult a physician if symptoms persist.

##### SKIN CONTACT

The compound is not likely to be hazardous by skin contact, but cleansing the skin after use is advisable. If molten polymer gets on skin, cool rapidly with cold water. Do not attempt to peel polymer from skin. Obtain medical treatment for thermal burn.

##### EYE CONTACT

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.



INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETY DATA SHEET

### (FIRST AID MEASURES - Continued)

#### INGESTION

No specific intervention is indicated as compound is not likely to be hazardous by ingestion.

#### Flammable Properties

Flash Point : Not Applicable

#### Fire and Explosion Hazards:

Combustible. Hazardous gases/vapors produced in fire are carbon monoxide.

Like most organic materials in powder form, dust generated from this product may form a flammable dust-air mixture. Potential for a dust explosion may exist. Minimize the generation and accumulation of dust. Keep away from sources of ignition.

#### Extinguishing Media

Water, Foam, Dry Chemical, CO2.

#### Fire Fighting Instructions

Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus.

#### Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

#### Handling (Personnel)

See FIRST AID and PERSONAL PROTECTIVE EQUIPMENT SECTIONS.

#### Handling (Physical Aspects)

Minimize the generation and accumulation of dust.

#### Storage

Store in a cool, dry place. Keep containers tightly closed to prevent moisture absorption and contamination.

#### Engineering Controls

VENTILATION When hot processing this material, use local and/or general exhaust ventilation to control the concentration of vapors and fumes below exposure limits.

In cutting or grinding operations with this material, use local exhaust to control the concentration of dust below exposure limits.

#### Personal Protective Equipment

##### Eye/Face Protection

Wear safety glasses. Wear coverall chemical splash goggles and face shield when possibility exists for eye or face contact due to splashing or spraying of molten material. A full face mask



INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETY DATA SHEET

positive-pressure air-supplied respirator provides protection from eye irritation.

### Respirators

A NIOSH/MSHA approved air-purifying respirator with an organic vapor cartridge with a dust/mist filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

During grinding, sawing, routing, drilling or sanding operations use a NIOSH/MSHA approved air-purifying respirator with dust/mist cartridge or canister if airborne particulate concentrations are expected to exceed permissible exposure levels.

### Protective Clothing

If there is potential contact with hot/molten material, wear heat resistant clothing and footwear.

Wear leather or cotton gloves when grinding, sawing, routing, drilling or sanding.

### Exposure Guidelines

#### Exposure Limits

PEL (OSHA) : Particulates (Not Otherwise Regulated)  
15 mg/m<sup>3</sup>, 8 Hr. TWA, total dust  
5 mg/m<sup>3</sup>, 8 Hr. TWA, respirable dust

#### Other Applicable Exposure Limits

##### FIBERGLASS

PEL (OSHA) : None Established  
TLV (ACGIH) : 5 mg/m<sup>3</sup>, 8 Hr. TWA, inhalable particulate  
A4

##### CARBON BLACK

PEL (OSHA) : 3.5 mg/m<sup>3</sup>, 8 Hr. TWA  
TLV (ACGIH) : 3.5 mg/m<sup>3</sup>, 8 Hr. TWA, A4

### Physical Data

Melting Point : 220-228 C (428-442 F)  
Solubility in Water : Insoluble  
Odor : None  
Form : Pellets  
Specific Gravity : >1

### Chemical Stability

Stable at normal temperatures and storage conditions.

### Conditions to Avoid

Temperatures above 570 F (299 C) . Abnormally long processing time or high temperatures can produce irritating and toxic fumes.

### Incompatibility with Other Materials

Incompatible or can react with oxidizing agents.



INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETY DATA SHEET

### (STABILITY AND REACTIVITY - Continued)

#### Decomposition

Hazardous gases or vapors can be released, including carbon monoxide, Aldehydes, tetrahydrofuran.

#### Polymerization

Polymerization will not occur.

#### Animal Data

##### Polybutylene Terephthalate

Rats exposed to combustion products exhibited signs of carbon monoxide intoxication.

No animal data are available to define the carcinogenicity, developmental, reproductive or mutagenic hazards of Polybutylene Terephthalate.

##### Fiber Glass

Skin irritation and mild eye irritation occurs in animals, but these effects are attributed primarily to mechanical damage rather than a chemical effect.

The effects in mice from single exposure by intratracheal instillation with Fiber Glass include an inflammatory response. Repeated inhalation exposures invoked pulmonary macrophage reactions similar to biologically inert dusts.

Tests in some animals with Fiber Glass demonstrate carcinogenic activity. However, these studies were by artificial implantation or injection of fine glass fibers into the chest, abdominal cavity, or trachea and are judged to be irrelevant to industrial exposure. Chronic inhalation exposure of animals to fiber glass at low concentrations produced minimal fibrosis in one study and no adverse effects in a different study.

No animal test reports are available to define mutagenic, developmental, or reproductive hazards.

#### CARBON BLACK

Oral ALD, rat: > 25,100 mg/kg

Repeated inhalation exposure of animals to Carbon Black caused inflammation of the respiratory tract, lungs and emphysema.

Repeated exposure to high doses of Carbon Black by ingestion or skin contact caused no significant toxicological effects.



INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETY DATA SHEET

### (TOXICOLOGICAL INFORMATION - Continued)

No adequate studies have been conducted in animals to define the carcinogenicity of Carbon Black by ingestion. In several skin painting studies using various Carbon Blacks no carcinogenicity was observed. Tests by inhalation for carcinogenicity in rats show significant increases in lung tumors in female rats but not male rats. In another study using female mice exposed by inhalation to Carbon Black there was no increase in the incidence of respiratory tract tumors. Researchers conducting the rat inhalation studies believe that these effects probably result from the massive accumulation of small dust particles in the lung which overwhelms the normal lung clearance mechanisms. This represents "lung overload" phenomenon, rather than a specific chemical effect of the dust particle in the lung.

Tests have shown that this material does not cause genetic damage in bacterial or mammalian cell cultures. Tests in animals for genetic toxicity have produced mostly negative results. No animal data are available to define developmental or reproductive toxicity.

### Ecotoxicological Information

#### AQUATIC TOXICITY:

No information is available. Toxicity is expected to be low based on insolubility in water. Do not discharge to streams, ponds, lakes or sewers.

### Waste Disposal

Preferred options for disposal are (1) recycling, (2) incineration with energy recovery, and (3) landfill. The high fuel value of this product makes option 2 very desirable for material that cannot be recycled, but incinerator must be capable of scrubbing out acidic combustion products. Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations.





INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETY DATA SHEET

Product Type: PBT  
Product Grade:

PBT 300RG  
PBT 301RG  
PBT F-500  
PBT HF-110  
PBT M20-110  
PBT M40-110  
PBT M50-110  
PBT M60-110  
PBT M30-110  
PBT M40-310  
PBT MAU

### Company Identification

MANUFACTURER/DISTRIBUTOR  
PHONE NUMBERS: 410-674-5600

### # Components

Material	CAS Number	%
POLYBUTYLENE TEREPHTHALATE	30965-26-5	>97
ANTIOXIDANTS, COLORANTS, LUBRICANTS		<2

### # Components (Remarks)

Material is not known to contain Toxic Chemicals under Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

Additives in this product do not present a respiration hazard unless the product is ground to a powder of respirable size and the dust is inhaled. All dusts are potentially injurious to the respiratory tract if respirable particles are generated and inhaled in sufficiently high concentrations. Good industrial hygiene practices, as with all dusts, should include precautions to prevent inhalation of respirable particles.

### Potential Health Effects

#### ADDITIONAL HEALTH EFFECTS

#### POLYBUTYLENE TEREPHTHALATE

Eye contact with Polybutylene Terephthalate particles may cause mechanical irritation with discomfort, tearing, or blurring of vision.

Decomposition products caused by overheating Polybutylene Terephthalate may cause skin, eye or respiratory tract irritation.

### Carcinogenicity Information



None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

#### First Aid

##### INHALATION

No specific intervention is indicated as the compound is not likely to be hazardous by inhalation. Consult a physician if necessary. If exposed to fumes from overheating or combustion, move to fresh air. Consult a physician if symptoms persist.

##### SKIN CONTACT

The compound is not likely to be hazardous by skin contact, but cleansing the skin after use is advisable. If molten polymer gets on skin, cool rapidly with cold water. Do not attempt to peel polymer from skin. Obtain medical treatment for thermal burn.

##### EYE CONTACT

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

##### INGESTION

No specific intervention is indicated as compound is not likely to be hazardous by ingestion.

#### # Flammable Properties

Flash Point : Not Applicable Fire

and Explosion Hazards:

Hazardous gases/vapors produced in fire are carbon monoxide.

Like most organic materials in powder form, dust generated from this product may form a flammable dust-air mixture. Potential for a dust explosion may exist. Minimize the generation and accumulation of dust. Keep away from sources of ignition.

#### Extinguishing Media

Water, Foam, Dry Chemical, CO2.

#### Fire Fighting Instructions

Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus.

#### Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

#### Spill Clean Up

Spilled material is a slipping hazard. Sweep up to avoid slipping hazard.

#### Handling (Personnel)



See FIRST AID and PERSONAL PROTECTIVE EQUIPMENT SECTIONS.

**# Handling (Physical Aspects)**

Minimize the generation and accumulation of dust.

**Storage**

Store in a cool, dry place.  
moisture absorption and contamination.

Keep containers tightly closed to prevent

**Engineering Controls**

**VENTILATION** When hot processing this material, use local and/or general exhaust ventilation to control the concentration of vapors and fumes below exposure limits.

In cutting or grinding operations with this material, use local exhaust to control the concentration of dust below exposure limits.

**# Personal Protective Equipment Eye/Face**

**Protection**

Wear safety glasses. Wear coverall chemical splash goggles and face shield when possibility exists for eye or face contact due to splashing or spraying of molten material. A full face mask positive-pressure air-supplied respirator provides protection from eye irritation.

**Respirators**

A NIOSH/MSHA approved air-purifying respirator with an organic vapor cartridge with a dust/mist filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

During grinding, sawing, routing, drilling or sanding operations use a NIOSH/MSHA approved air-purifying respirator with dust/mist cartridge or canister if airborne particulate concentrations are expected to exceed permissible exposure levels.

**Protective Clothing**

If there is potential contact with hot/molten material, wear heat resistant clothing and footwear.

Wear leather or cotton gloves when grinding, sawing, routing, drilling or sanding.

**Exposure Guidelines**

PEL (OSHA)	: Particulates (Not Otherwise Regulated) 15 mg/m <sup>3</sup> , 8 Hr. TWA, total dust 5 mg/m <sup>3</sup> , 8 Hr. TWA, respirable dust
------------	--

**Physical Data**

Melting Point	: 220-228 C (428-442 F)	Solubility
in Water	: Insoluble	
Odor	: None	



INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETY DATA SHEET

Form  
Specific Gravity

: Pellets  
: >1

### Chemical Stability

Stable at normal temperatures and storage conditions.

### Conditions to Avoid

Temperatures above 570 F (299 C). Abnormally long processing time or high temperatures can produce irritating and toxic fumes.

### Incompatibility with Other Materials

Incompatible or can react with oxidizing agents.

### Decomposition

Hazardous gases or vapors can be released, including carbon monoxide, Aldehydes, tetrahydrofuran.

### Polymerization

Polymerization will not occur.

### Animal Data

Polybutylene Terephthalate  
Rats exposed to combustion products exhibited signs of carbon monoxide intoxication.

No animal data are available to define the carcinogenicity, developmental, reproductive or mutagenic hazards of Polybutylene Terephthalate.

### Ecotoxicological Information

#### AQUATIC TOXICITY:

No information is available.  
water.

Toxicity is expected to be low based on insolubility in  
Do not discharge to streams, ponds, lakes or sewers.

### Waste Disposal

Preferred options for disposal are (1) recycling, (2) Incineration with energy recovery, and (3) landfill. The high fuel value of this product makes option 2 very desirable for material that cannot be recycled, but incinerator must be capable of scrubbing out acidic combustion products. Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations.



INTERCONTINENTAL  
EXPORT IMPORT, INC

# SAFETY DATA SHEET

## PA66 GLASS MINERAL FILLED

Version 1.0

Revision Date 10/27/2015

This SDS adheres to the standards and regulatory requirements of the United States and may not meet the regulatory requirements in other countries.

### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : PA66 GLASS, MINERAL FILLED Resin  
Product Use : Polymer

PA66 G13-110HS  
PA66 G33-110HS  
PA66 G43-310  
PA66 GM38-310  
PA66 M40-310  
PA66 GM-510  
PA66 G13-310  
PA66 GF-302RG

Restrictions on use : For manufacturing and research use only

Manufacturer/Supplier : Intercontinental Export Import, Inc  
8815 Center Park Drive  
Suite 400  
Columbia MD, 21045

Product Information : +1-410-674-5600

### SECTION 2. HAZARDS IDENTIFICATION

Product hazard category  
Combustible dust

Label content  
Pictogram : notrequired



INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETY DATA SHEET PA66 GLASS MINERAL FILLED

Signal word : Warning

Hazardous warnings : May form combustible dust concentrations in air.

Hazardous prevention  
Measures : not required

Other hazards



Version 1.0

Revision Date 10/27/2015

If small particles are generated during further processing, handling or by other means, may form combustible dust concentrations in air.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

This product does not contain any components that require disclosure according to OSHA Hazard Communication Standard 2012.

### SECTION 4. FIRST AID MEASURES

General advice	: No applicable data available.
Inhalation	: Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
Skin contact	: The material is not likely to be hazardous by skin contact, but cleaning the skin after use is advisable. Cool skin rapidly with cold water after contact with molten material. Do not peel polymer from the skin. Obtain medical treatment for thermal burn.
Eye contact	: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.
Ingestion	: No specific intervention is indicated. Consult a physician if necessary.
Most important symptoms/effects, acute and delayed	: No applicable data available.
Protection of first-aiders	: No applicable data available.
Notes to physician	: No applicable data available.

### SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Water, Foam, Dry chemical, Carbon dioxide (CO2)



Version 1.0

Revision Date 10/27/2015

- Unsuitable extinguishing media** : No applicable data available.
- Specific hazards** : Combustible . Large molten masses may ignite spontaneously in air. Water quenching is good practice. Minimize the generation and accumulation of dust. Failure or malfunction of temperature control systems on processing equipment, such as extruders, may create explosion hazards. (see also section 10) Carbon monoxide, Carbon dioxide.
- Special protective equipment for firefighters** : Wear self-contained breathing apparatus and protective suit.
- Further information** : Evacuate personnel and keep upwind of fire.

#### SECTION 6. ACCIDENTAL RELEASE MEASURES

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

- Safeguards (Personnel)** : Spilled material is a slipping hazard.
- Environmental precautions** : Do not discharge to streams, ponds, lakes or sewers.
- Spill Cleanup** : Spills of fine material should be cleaned using gentle sweeping or vacuuming. Cleaning methods (e.g. compressed air) which can generate potentially combustible dust clouds should not be used. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Use only non-sparking tools.
- Accidental Release Measures** : No applicable data available.

#### SECTION 7. HANDLING AND STORAGE

- Handling (Personnel)** : Open container only in well-ventilated area. Wash hands thoroughly after handling. Provide appropriate exhaust ventilation at dryers, machinery and at places where dust or volatiles can be generated. Do not breathe dust. Minimize the generation and accumulation of dust. Pneumatic conveying and other mechanical handling operations can generate combustible dust. Routine housekeeping should be instituted to ensure that dusts do not





Version 1.0

Revision Date 10/27/2015

accumulate on surfaces.

- Handling (Physical Aspects) : No applicable data available.  
Dust explosion class : No applicable data available.  
Storage : Store in a cool, dry place. Keep container closed to prevent contamination.  
Keep in an area equipped with sprinklers.
- Storage period : No applicable data available.
- Storage temperature : No applicable data available.

#### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Engineering controls : General mechanical ventilation is normally adequate but use local exhaust where necessary to maintain exposures below acceptable limits. Use local exhaust to completely remove vapors and fumes liberated during hot processing from the work area.
- Personal protective equipment  
Respiratory protection : Additives in this product do not present a respiration hazard unless the product is ground to a powder of respirable size and the dust is inhaled. All dusts are potentially injurious to the respiratory tract if respirable particles are generated and inhaled. A respiratory protection program that meets country requirements must be followed whenever workplace conditions warrant respirator use. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer. Consult the OSHA respiratory protection information located at 29CFR 1910.134. Use a positive pressure air supplied respirator if exposure levels are not known or there are any other circumstances where air purifying respirators may not provide adequate protection.
- Hand protection : Additional protection: Wear leather or cotton gloves when grinding, sawing, routing, drilling or sanding., When handling hot material, use heat resistant gloves.
- Eye protection : Wear safety glasses with side shields. Wear tightly fitting chemical splash goggles and face shield when possibility exists for eye and face contact due to spattering or splashing of molten material. A full-face mask respirator provides protection from eye irritation.
- Skin and body protection : If there is a potential for contact with hot/molten material wear heat resistant clothing and footwear.



Version 1.0

Revision Date 10/27/2015

**Exposure Guidelines  
Exposure Limit Values**

This product does not contain any exposure limits that require disclosure according to OSHA Hazard Communication Standard 2012.

**Non-Constituent(s)**

Dust (inhalable and respirable fraction)			
Permissible exposure limit:	(OSHA)	5 mg/m3	8 hr. TWA Respirable fraction.
Permissible exposure limit:	(OSHA)	15 mg/m3	8 hr. TWA Total dust.
TLV	(ACGIH)	3 mg/m3	TWA Respirable particles.
TLV	(ACGIH)	10 mg/m3	TWA Inhalable particles.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	
Physical state	: solid
Form	: pellets
Color	: natural
<b>Odor</b>	: none
<b>Odor threshold</b>	: No applicable data available.
<b>pH</b>	: Not applicable
<b>Melting point/freezing point</b>	: Melting point/range > 200 °C (> 392 °F)
<b>Boiling point/boiling range</b>	: Boiling point/boiling range Not applicable



Version 1.0

Revision Date 10/27/2015

Flash point	: Not applicable
Evaporation rate	: Not applicable
Flammability (solid, gas)	: May form combustible dust concentrations in air.
Upper explosion limit	: Not applicable
Lower explosion limit	: Not applicable
Vapor pressure	: Not applicable
Vapor density	: Not applicable
Specific gravity (Relative density)	: > 1
Water solubility	: insoluble
Solubility(ies)	: No applicable data available.
Partition coefficient: n-octanol/water	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: >340 °C

Thermal decomposition of the resin accelerates above temperature listed.

Decomposition can occur below the recommended processing temperature limit.

Decomposition is a function of both processing temperature and time at that temperature.

Viscosity, kinematic : Not applicable

Viscosity, dynamic : Not applicable

#### SECTION 10. STABILITY AND REACTIVITY

Reactivity : Stable at normal ambient temperature and pressure.



Version 1.0

Revision Date 10/27/2015

- Chemical stability** : Stable at normal ambient temperature and pressure.
- Possibility of hazardous reactions** : Polymerization will not occur.
- Conditions to avoid** : Temperature > 340 °C (> 644 °F)  
Avoid prolonged exposure at or above the recommended processing temperatures.  
Decomposes on heating.  
At temperatures above the "conditions to avoid" temperature, thermal decomposition of the resin accelerates.  
Decomposition can occur below the recommended processing temperature limit.  
Decomposition is a function of both processing temperature and time at that temperature.
- Incompatible materials** : Strong acids Strong bases, Strong oxidizing agents
- Hazardous decomposition products** : Hazardous thermal decomposition products may include:  
Aldehydes, Nitrogen oxides (NOx), traces of hydrogen cyanide, Ammonia ,  
Carbon monoxide , Carbon dioxide, Cyclopentanone

## SECTION 11. TOXICOLOGICAL INFORMATION

### PA66 GLASS, MINERAL FILLED Resin

- Further information** : No data is available on the product itself. For additional toxicity data, write to the company address or call the non-emergency number shown in Section 1.

#### Carcinogenicity

The carcinogenicity classifications for this product and/or its ingredients have been determined according to HazCom 2012, Appendix A.6. The classifications may differ from those listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or those found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition).

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

## SECTION 12. ECOLOGICAL INFORMATION



Version 1.0

Revision Date 10/27/2015

**Additional ecological information** : No data is available on the product itself. Toxicity is expected to be low based on insolubility in water.

### SECTION 13. DISPOSAL CONSIDERATIONS

- Waste disposal methods - Product** : Preferred options for disposal are recycling or incineration with energy recovery. The high fuel value of this product makes incineration very desirable for material that cannot be recycled. Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations.
- Contaminated packaging** : No applicable data available.

### SECTION 14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

### SECTION 15. REGULATORY INFORMATION

- TSCA** : In compliance with TSCA Inventory requirements for commercial purposes.
- SARA 313 Regulated Chemical(s)** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
- PA Right to Know Regulated Chemical(s)** : Substances on the Pennsylvania Hazardous Substances List present at a concentration of 1% or more (0.01% for Special Hazardous Substances): None known.
- NJ Right to Know Regulated Chemical(s)** : Substances on the New Jersey Workplace Hazardous Substance List present at a concentration of 1% or more (0.1% for substances identified as carcinogens, mutagens or teratogens): None known.
- California Prop. 65** : Chemicals known to the State of California to cause cancer, birth defects or



INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETY DATA SHEET PA66 GLASS MINERAL FILLED

Version 1.0

Revision Date 10/27/2015

any other harm: none known

### SECTION 16. OTHER INFORMATION

**Restrictions for use** : Do not use Niche materials in medical applications involving implantation in the human body or contact with internal body fluids or tissues unless the material has been provided from Niche under a written contract that is consistent with Niche policy regarding medical applications and expressly acknowledges the contemplated use. For further information, please contact your Niche representative.

Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

Revision Date : 10/27/2015

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Significant change from previous version is denoted with a double bar.



INTERCONTINENTAL  
EXPORT IMPORT, INC

# SAFETY DATA SHEET

## PA66 RESIN

Version 1.0

Revision Date 10/27/2015

This SDS adheres to the standards and regulatory requirements of the United States and may not meet the regulatory requirements in other countries.

### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : PA66 Resin  
Product Use : Polymer

PA66 NG-105  
PA66 NG-111  
PA66 NG-101RG  
PA66 NG-110  
PA66 HI-110  
PA66 MI-310  
PA66 NG-310  
PA66 MAU  
PA66 120L-A  
PA66 120L-B  
PA66 120L-C  
PA66 AB-120UC  
PA66 AB-520C  
PA66 120

Restrictions on use : For manufacturing and research use only

Manufacturer/Supplier : Intercontinental Export Import, Inc  
8815 Center Park Drive  
Suite 400  
Columbia MD, 21045

Product Information : +1-410-674-5800

### SECTION 2. HAZARDS IDENTIFICATION



INTERCONTINENTAL  
EXPORT IMPORT, INC

# SAFETY DATASHEET

## PA66 RESIN

**Product hazard category**  
Combustible dust

**Label content**

Pictogram

: notrequired

Signal word

: Warning

Hazardous warnings

: May form combustible dust concentrations in air.

Hazardous prevention

: not required

Measures

**Other hazards**







Version 1.0

Revision Date 10/27/2015

If small particles are generated during further processing, handling or by other means, may form combustible dust concentrations in air.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

This product does not contain any components that require disclosure according to OSHA Hazard Communication Standard 2012.

### SECTION 4. FIRST AID MEASURES

General advice	: No applicable data available.
Inhalation	: Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
Skin contact	: The material is not likely to be hazardous by skin contact, but cleaning the skin after use is advisable. Cool skin rapidly with cold water after contact with molten material. Do not peel polymer from the skin. Obtain medical treatment for thermal burn.
Eye contact	: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.
Ingestion	: No specific intervention is indicated. Consult a physician if necessary.
Most important symptoms/effects, acute and delayed	: No applicable data available.
Protection of first-aiders	: No applicable data available.
Notes to physician	: No applicable data available.

### SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Water, Foam, Dry chemical, Carbon dioxide (CO2)



Version 1.0

Revision Date 10/27/2015

- Unsuitable extinguishing media : No applicable data available.
- Specific hazards : Combustible . Large molten masses may ignite spontaneously in air. Water quenching is good practice. Minimize the generation and accumulation of dust. Failure or malfunction of temperature control systems on processing equipment, such as extruders, may create explosion hazards. (see also section 10) Carbon monoxide, Carbon dioxide.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus and protective suit.
- Further information : Evacuate personnel and keep upwind of fire.

#### SECTION 6. ACCIDENTAL RELEASE MEASURES

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

- Safeguards (Personnel) : Spilled material is a slipping hazard.
- Environmental precautions : Do not discharge to streams, ponds, lakes or sewers.
- Spill Cleanup : Spills of fine material should be cleaned using gentle sweeping or vacuuming. Cleaning methods (e.g. compressed air) which can generate potentially combustible dust clouds should not be used. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Use only non-sparking tools.
- Accidental Release Measures : No applicable data available.

#### SECTION 7. HANDLING AND STORAGE

- Handling (Personnel) : Open container only in well-ventilated area. Wash hands thoroughly after handling. Provide appropriate exhaust ventilation at dryers, machinery and at places where dust or volatiles can be generated. Do not breathe dust. Minimize the generation and accumulation of dust. Pneumatic conveying and other mechanical handling operations can generate combustible dust. Routine housekeeping should be instituted to ensure that dusts do not



Version 1.0

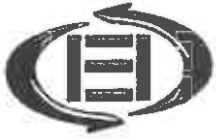
Revision Date 10/27/2015

accumulate on surfaces.

- Handling (Physical Aspects) : No applicable data available.
- Dust explosion class : No applicable data available.
- Storage : Store in a cool, dry place. Keep container closed to prevent contamination. Keep in an area equipped with sprinklers.
- Storage period : No applicable data available.
- Storage temperature : No applicable data available.

#### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Engineering controls : General mechanical ventilation is normally adequate but use local exhaust where necessary to maintain exposures below acceptable limits. Use local exhaust to completely remove vapors and fumes liberated during hot processing from the work area.
- Personal protective equipment  
Respiratory protection : Additives in this product do not present a respiration hazard unless the product is ground to a powder of respirable size and the dust is inhaled. All dusts are potentially injurious to the respiratory tract if respirable particles are generated and inhaled. A respiratory protection program that meets country requirements must be followed whenever workplace conditions warrant respirator use. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer. Consult the OSHA respiratory protection information located at 29CFR 1910.134. Use a positive pressure air supplied respirator if exposure levels are not known or there are any other circumstances where air purifying respirators may not provide adequate protection.
- Hand protection : Additional protection: Wear leather or cotton gloves when grinding, sawing, routing, drilling or sanding. When handling hot material, use heat resistant gloves.
- Eye protection : Wear safety glasses with side shields. Wear tightly fitting chemical splash goggles and face shield when possibility exists for eye and face contact due to spattering or splashing of molten material. A full-face mask respirator provides protection from eye irritation.
- Skin and body protection : If there is a potential for contact with hot/molten material wear heat resistant clothing and footwear.



Version 1.0

Revision Date 10/27/2015

**Exposure Guidelines**  
**Exposure Limit Values**

This product does not contain any exposure limits that require disclosure according to OSHA Hazard Communication Standard 2012.

**Non-Constituent(s)**

Dust (inhalable and respirable fraction)			
Permissible exposure limit:	(OSHA)	5 mg/m3	8 hr. TWA Respirable fraction.
Permissible exposure limit:	(OSHA)	15 mg/m3	8 hr. TWA Total dust.
TLV	(ACGIH)	3 mg/m3	TWA Respirable particles.
TLV	(ACGIH)	10 mg/m3	TWA Inhalable particles.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	
Physical state	: solid
Form	: pellets
Color	: natural
<b>Odor</b>	: none
<b>Odor threshold</b>	: No applicable data available.
<b>pH</b>	: Not applicable
<b>Melting point/freezing point</b>	: Melting point/range > 200 °C (> 392 °F)
<b>Boiling point/boiling range</b>	: Boiling point/boiling range Not applicable



Version 1.0

Revision Date 10/27/2015

Flash point	: Not applicable
Evaporation rate	: Not applicable
Flammability (solid, gas)	: May form combustible dust concentrations in air.
Upper explosion limit	: Not applicable
Lower explosion limit	: Not applicable
Vapor pressure	: Not applicable
Vapor density	: Not applicable
Specific gravity (Relative density)	: > 1
Water solubility	: insoluble
Solubility(ies)	: No applicable data available.
Partition coefficient: n-octanol/water	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: >340 °C

Thermal decomposition of the resin accelerates above temperature listed.

Decomposition can occur below the recommended processing temperature limit.

Decomposition is a function of both processing temperature and time at that temperature.

Viscosity, kinematic : Not applicable

Viscosity, dynamic : Not applicable

#### SECTION 10. STABILITY AND REACTIVITY

Reactivity : Stable at normal ambient temperature and pressure.



Version 1.0

Revision Date 10/27/2015

- Chemical stability** : Stable at normal ambient temperature and pressure.
- Possibility of hazardous reactions** : Polymerization will not occur.
- Conditions to avoid** : Temperature > 340 °C (> 644 °F)  
Avoid prolonged exposure at or above the recommended processing temperatures.  
Decomposes on heating.  
At temperatures above the "conditions to avoid" temperature, thermal decomposition of the resin accelerates.  
Decomposition can occur below the recommended processing temperature limit.  
Decomposition is a function of both processing temperature and time at that temperature.
- Incompatible materials** : Strong acids Strong bases, Strong oxidizing agents
- Hazardous decomposition products** : Hazardous thermal decomposition products may include:  
Aldehydes, Nitrogen oxides (NOx), traces of hydrogen cyanide, Ammonia ,  
Carbon monoxide , Carbon dioxide, Cyclopentanone

## SECTION 11. TOXICOLOGICAL INFORMATION

### PA66 Resin

- Further information** : No data is available on the product itself. For additional toxicity data, write to the company address or call the non-emergency number shown in Section 1.

#### Carcinogenicity

The carcinogenicity classifications for this product and/or its ingredients have been determined according to HazCom 2012, Appendix A.6. The classifications may differ from those listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or those found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition).

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

## SECTION 12. ECOLOGICAL INFORMATION



Version 1.0

Revision Date 10/27/2015

**Additional ecological information** : No data is available on the product itself. Toxicity is expected to be low based on insolubility in water.

### SECTION 13. DISPOSAL CONSIDERATIONS

- Waste disposal methods - Product** : Preferred options for disposal are recycling or incineration with energy recovery. The high fuel value of this product makes incineration very desirable for material that cannot be recycled. Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations.
- Contaminated packaging** : No applicable data available.

### SECTION 14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

### SECTION 15. REGULATORY INFORMATION

- TSCA** : In compliance with TSCA Inventory requirements for commercial purposes.
- SARA 313 Regulated Chemical(s)** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
- PA Right to Know Regulated Chemical(s)** : Substances on the Pennsylvania Hazardous Substances List present at a concentration of 1% or more (0.01% for Special Hazardous Substances): None known.
- NJ Right to Know Regulated Chemical(s)** : Substances on the New Jersey Workplace Hazardous Substance List present at a concentration of 1% or more (0.1% for substances identified as carcinogens, mutagens or teratogens): None known.
- California Prop. 65** : Chemicals known to the State of California to cause cancer, birth defects or



INTERCONTINENTAL  
EXPORT IMPORT, INC

# SAFETY DATA SHEET

## PA66 RESIN

Version 1.0

Revision Date 10/27/2015

any other harm: none known

### SECTION 16. OTHER INFORMATION

Restrictions for use : Do not use Niche materials in medical applications involving implantation in the human body or contact with internal body fluids or tissues unless the material has been provided from Niche under a written contract that is consistent with Niche policy regarding medical applications and expressly acknowledges the contemplated use. For further information, please contact your Niche representative.

Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

Revision Date : 10/27/2015

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Significant change from previous version is denoted with a double bar.





INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETY DATA SHEET

Product Type: Nylon 612 Glass Mineral Filled  
Product Grade:  
PA612 G33-110  
PA612 G33-310

### Company

Identificati

on

MANUFACT

URER/DIST

RIBUTOR

PHONE NUMBERS: 410-674-5600

### Components

Material	CAS Number	%
NYLON 612	26098-55-5	>55
FIBERGLASS		<45
COLORANTS, LUBRICANTS, STABILIZERS		<2

### Components (Remarks)

Material is not known to contain Toxic Chemicals under Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR parts 372.

### (COMPOSITION/INFORMATION ON INGREDIENTS - Continued)

Additives in this product do not present a respiration hazard unless the product is ground to a powder of respirable size and the dust is inhaled. All dusts are potentially injurious to the respiratory tract if respirable particles are generated and inhaled in sufficiently high concentrations. Good industrial hygiene practices, as with all dusts, should include precautions to prevent inhalation of respirable particles.

### Potential Health Effects

#### ADDITIONAL HEALTH EFFECTS

Read the datasheet for this product or the molding guide for this resin family.

#### Nylon 612

No adverse effects are expected from occupational exposure.

Significant skin permeation after contact appears unlikely.  
are no reports of human sensitization.

There

#### FIBERGLASS

The mechanical action of the sharp fibers from Fiber Glass may cause skin irritation with discomfort or rash.



INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETY DATA SHEET

Eye contact with Fiber Glass particles may cause mechanical eye irritation with discomfort, tearing, or blurring of vision.

Inhalation of Fiber Glass particles may cause irritation of the upper respiratory passages, with coughing and discomfort.

Results from epidemiology studies suggest no causal relationship between Fiber Glass exposure and cancer. One epidemiology study does indicate a slight increase in lung cancer deaths. The evidence that fiber glass is related to these increased lung cancer deaths is considered weak.

Individuals with preexisting diseases of the lungs may have increased susceptibility to the toxicity of excessive exposures.

### Carcinogenicity Information

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

### First Aid

#### INHALATION

No specific intervention is indicated as the compound is not likely to be hazardous by inhalation. Consult a physician if necessary. If exposed to fumes from overheating or combustion, move to fresh air. Consult a physician if symptoms persist.

#### SKIN CONTACT

The compound is not likely to be hazardous by skin contact, but cleansing the skin after use is advisable. If molten polymer gets on skin, cool rapidly with cold water. Do not attempt to peel polymer from skin. Obtain medical treatment for thermal burn.

#### EYE CONTACT

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

#### INGESTION

No specific intervention is indicated as compound is not likely to be hazardous by ingestion.

### Flammable Properties

Flash Point : Not Applicable Fire

and Explosion Hazards:

Large molten masses may ignite spontaneously in air. Water quenching of such masses is good practice.

Hazardous gases/vapors produced in fire are ammonia, carbon monoxide, traces of hydrogen cyanide, Aldehydes.

### Extinguishing Media

Water, Foam, Dry Chemical, CO2.

### Fire Fighting Instructions

Keep personnel removed and upwind of fire.

Wear self-contained



INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETY DATA SHEET

breathing apparatus.

### Safeguards (Personnel)

**NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL)**

Sections before proceeding with clean-up.

Use appropriate

PERSONAL PROTECTIVE EQUIPMENT during clean-up.

### Spill Clean Up

Sweep up to avoid slipping hazard.

### Handling (Personnel)

See FIRST AID and PERSONAL PROTECTIVE EQUIPMENT SECTIONS.

### Storage

Store in a cool, dry place.  
moisture absorption and contamination.

Keep containers tightly closed to prevent

### Engineering Controls

**VENTILATION** When hot processing this material, use local and/or general exhaust ventilation to control the concentration of vapors and fumes below exposure limits.

In cutting or grinding operations with this material, use local exhaust to control the concentration of dust below exposure limits.

### # Personal Protective Equipment Eye/Face

#### Protection

Wear safety glasses. Wear coverall chemical splash goggles and face shield when possibility exists for eye or face contact due to splashing or spraying of molten material. A full face mask positive-pressure air-supplied respirator provides protection from eye irritation.

#### Respirators

A NIOSH/MSHA approved air-purifying respirator with an organic vapor cartridge with a dust/mist filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known or any other circumstances where air-purifying respirators may not provide adequate protection.

(EXPOSURE CONTROLS/PERSONAL PROTECTION - Continued)

During grinding, sawing, routing, drilling or sanding operations use a NIOSH/MSHA approved air-purifying respirator with dust/mist cartridge or canister if airborne particulate concentrations are expected to exceed permissible exposure levels.

#### Protective Clothing

If there is potential contact with hot/molten material, wear heat resistant clothing and footwear.

Wear leather or cotton gloves when grinding, sawing, routing, drilling or sanding.



INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETY DATA SHEET

### Exposure Guidelines

#### Exposure Limits

"ZYTEL" NYLON RESINS ON SYNONYM LIST ZYT190

PEL (OSHA) : Particulates (Not Otherwise Regulated)  
15 mg/m<sup>3</sup>, 8 Hr. TWA, total dust  
5 mg/m<sup>3</sup>, 8 Hr. TWA, respirable dust

#### Other Applicable Exposure Limits FIBERGLASS

PEL (OSHA) : None Established  
TLV (ACGIH) : 5 mg/m<sup>3</sup>, 8 Hr.TWA, inhalable particulate  
A4

### Physical Data

Melting Point : >200 C (>392 F)  
Solubility in Water : Insoluble  
Odor : None  
Form : Pellets.  
Specific Gravity : >1

### Chemical Stability

Stable at normal temperatures and storage conditions.

### Conditions to Avoid

Temperatures above 340 C (644 F).

### Incompatibility with Other Materials

Incompatible or can react with strong acids, oxidizing agents.

### Decomposition

Hazardous gases or vapors can be released, including Cyclopentanone, carbon monoxide, Aldehydes, ammonia.

### Polymerization

Polymerization will not occur.

### Animal Data

Nylon 612  
Oral LD50: > 10,000 mg/kg in rats

Nylon 612 is not a skin irritant or eye irritant in animal tests.

Nylon 612 caused no adverse effects when administered to animals in their diets for 13 weeks.

No animal test reports are available to define carcinogenic, mutagenic, developmental, or reproductive hazards.

#### Fiber Glass

Skin irritation and mild eye irritation occurs in animals, but these effects are attributed primarily to mechanical damage rather than a chemical effect.

The effects in mice from single exposure by intratracheal instillation with Fiber Glass include an inflammatory response. Repeated Inhalation exposures invoked pulmonary macrophage



INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETY DATA SHEET

reactions similar to biologically inert dusts.

### (TOXICOLOGICAL INFORMATION - Continued)

Tests in some animals with Fiber Glass demonstrate carcinogenic activity. However, these studies were by artificial implantation or injection of fine glass fibers into the chest, abdominal cavity, or trachea and are judged to be irrelevant to industrial exposure.

Chronic inhalation exposure of animals to fiber glass at low concentrations produced minimal fibrosis in one study and no adverse effects in a different study.

No animal test reports are available to define mutagenic, developmental, or reproductive hazards.

### Ecotoxicological Information

#### AQUATIC TOXICITY:

No information is available.  
water.

Toxicity is expected to be low based on insolubility in  
Do not discharge to streams, ponds, lakes or sewers.

### # Waste Disposal

Preferred options for disposal are (1) recycling, (2) incineration with energy recovery, and (3) landfill. The high fuel value of this product makes option 2 very desirable for material that cannot be recycled, but incinerator must be capable of scrubbing out acidic combustion products. Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations.

### Shipping Information

Not regulated in transportation by DOT/IMO/IATA.

### U.S. Federal Regulations

TSCA Inventory Status

In compliance with TSCA Inventory  
Requirements for commercial purposes.

End of MSDS



**Product Type : Nylon 612**

**Product Grade:**

PA612 NG-110  
PA612 NG-310  
PA612 501RG  
PA612 F-500  
PA612 MAU  
PA612 F-120  
PA612 F-520  
PA612 GF-520SP  
PA612 NG-120  
PA612 NG-150  
PA612 120L  
ZYTEL 158L

**Company Identification**

**MANUFACTURER/DISTRIBUTOR**

**PHONE NUMBERS: 410-674-5600**

**Components**

Material	CAS Number	%
POLYHEXAMETHYLENE DODECANAMIDE	26098-55-5	>97
LUBRICANTS, STABILIZERS		0-3

**Components (Remarks)**

Material is not known to contain Toxic Chemicals under Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR parts 372.

Additives in this product do not present a respiration hazard unless the product is ground to a powder of respirable size and the dust is inhaled. All dusts are potentially injurious to the respiratory tract if respirable particles are generated and inhaled in sufficiently high concentrations. Good industrial hygiene practices, as with all dusts, should include precautions to prevent inhalation of respirable particles.

**Potential Health Effects**

**ADDITIONAL HEALTH EFFECTS**

Read the datasheet for this product or the molding guide for this resin family.

**POLYHEXAMETHYLENE DODECANAMIDE (Nylon 612)**

No adverse effects are expected from occupational exposure.

Significant skin permeation after contact appears unlikely.  
are no reports of human sensitization.

There

**Carcinogenicity Information**



None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

#### First Aid

##### INHALATION

No specific intervention is indicated as the compound is not likely to be hazardous by Inhalation. Consult a physician if necessary. If exposed to fumes from overheating or combustion, move to fresh air. Consult a physician if symptoms persist.

##### SKIN CONTACT

The compound is not likely to be hazardous by skin contact, but cleansing the skin after use is advisable. If molten polymer gets on skin, cool rapidly with cold water. Do not attempt to peel polymer from skin. Obtain medical treatment for thermal burn.

##### EYE CONTACT

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

##### INGESTION

No specific intervention is indicated as compound is not likely to be hazardous by ingestion.

#### Flammable Properties

Flash Point : Not Applicable Fire

##### and Explosion Hazards:

Like most organic materials in powder form, dust generated from this product may form a flammable dust-air mixture. Potential for a dust explosion may exist. Minimize the generation and accumulation of dust. Keep away from sources of ignition.

Large molten masses may ignite spontaneously in air. Water quenching of such masses is good practice.

Hazardous gases/vapors produced in fire are ammonia, carbon monoxide, traces of hydrogen cyanide, Aldehydes.

#### Extinguishing Media

Water, Foam, Dry Chemical, CO<sub>2</sub>.

#### Fire Fighting Instructions

Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus.

#### Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) Sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

#### Spill Clean Up

Spilled material is a slipping hazard. Sweep up to avoid slipping hazard.



**Handling (Personnel)**

See FIRST AID and PERSONAL PROTECTIVE EQUIPMENT SECTIONS.

**Handling (Physical Aspects)**

Minimize the generation and accumulation of dust.

**Storage**

Store in a cool, dry place. Keep containers tightly closed to prevent moisture absorption and contamination.

**Engineering Controls**

**VENTILATION** When hot processing this material, use local and/or general exhaust ventilation to control the concentration of vapors and fumes below exposure limits.

In cutting or grinding operations with this material, use local exhaust to control the concentration of dust below exposure limits.

**Personal Protective Equipment Eye/Face**

**Protection**

Wear safety glasses. Wear coverall chemical splash goggles and face shield when possibility exists for eye or face contact due to splashing or spraying of molten material. A full face mask positive-pressure air-supplied respirator provides protection from eye irritation.

**Respirators**

A NIOSH/MSHA approved air-purifying respirator with an organic vapor cartridge with a dust/mist filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known or any other circumstances where air-purifying respirators may not provide adequate protection.

During grinding, sawing, routing, drilling or sanding operations use a NIOSH/MSHA approved air-purifying respirator with dust/mist cartridge or canister if airborne particulate concentrations are expected to exceed permissible exposure levels.

**Protective Clothing**

If there is potential contact with hot/molten material, wear heat resistant clothing and footwear.

Wear leather or cotton gloves when grinding, sawing, routing, drilling or sanding.

**Exposure Guidelines**

<b>Exposure Limits</b>	
PEL (OSHA)	: Particulates (Not Otherwise Regulated) 15 mg/m <sup>3</sup> , 8 Hr. TWA, total dust 5 mg/m <sup>3</sup> , 8 Hr. TWA, respirable dust

**Physical Data**

Melting Point	: >200 C (>392 F)
Solubility in Water	: Insoluble
Odor	: None





Form : Pellets  
Specific Gravity : >1

**Chemical Stability**

Stable at normal temperatures and storage conditions.

**Conditions to Avoid**

Temperatures above 340 C (644 F).

**Incompatibility with Other Materials**

Incompatible or can react with strong acids, oxidizing agents.

**Decomposition**

Hazardous gases or vapors can be released, including carbon monoxide, ammonia, and hydrogen cyanide.

**Polymerization**

Polymerization will not occur.

**Animal Data**

Nylon 612  
Oral LD50: > 10,000 mg/kg in rats

Nylon 612 is not a skin irritant or eye irritant in animal tests.

Nylon 612 caused no adverse effects when administered to animals in their diets for 13 weeks.

No animal test reports are available to define carcinogenic, mutagenic, developmental, or reproductive hazards.

**Ecotoxicological Information**

**AQUATIC TOXICITY:**

No information is available.  
water.

Toxicity is expected to be low based on insolubility in  
Do not discharge to streams, ponds, lakes or sewers.

**Waste Disposal**

Preferred options for disposal are (1) recycling, (2) incineration with energy recovery, and (3) landfill. The high fuel value of this product makes option 2 very desirable for material that cannot be recycled, but incinerator must be capable of scrubbing out acidic combustion products. Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations.



**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING**

**Trade Name:** Nylon 610

**Grade Name:**

PA610 MAU

PA610 NG-110

---

**2. HAZARDS IDENTIFICATION**

**GHSClassification**

Not classified or Not applicable

**Other Hazards**

Dust can occur through abrasion if granulates are subjected to mechanical loading.  
Risk of skin burns caused by hot melt. Dust can form explosive mixtures with air.

---

**3. COMPOSITION/INFORMATION ON**

**INGREDIENTS Substance/Nature**

chemical

substance

**Chemical Nature**

moldingcompoundonthebase: polyamide610

**Information on Ingredients**

(Component)	(Contents%)	(CASNo.)	(METI)
Polyamide610	95-100		Listed
Stablizer, others	0-5		Listed

**Other Information**

This sheet describes a group of products. It only contains safety-relevant data. For specific data see Product information sheet.

---

**4. FIRST AID MEASURES**

**Description of first aid measures**

Pay attention to self-protection. Remove victims from hazardous area.

Keep warm, position comfortably, and cover well. Do not leave affected persons unattended.

**Inhalation**

In case of symptoms of irritation caused by vapor in thermal processing: provide fresh air, seek medical advice if necessary.

**Skin contact**

Following inhalation of product dust: See that there is fresh air. Cool melted production skin with plenty of water. Do not remove solidified product.

In case of burns by molten product medical treatment is necessary.

**Eye contact**

Rinse with plenty of water.

---



INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETY DATASHEET

---

### 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media** Watersplay, foam, CO<sub>2</sub>, drypowder

**Special hazards arising**

**From the substance or mixture** Maybereleasedincaseoffire: Carbonmonoxide, carbondioxide, nitricoxides, organicproductsofdecomposition.

Under certain fire conditions, trace of other toxic product may occur.

**Special protective equipment**

**For fire-fighters** Have ready/wear respiratory protection equipment.

---



## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment

And emergency procedures In case of product dust is released: Dust mask

Environmental precautions Should not be released into the environment.

### Methods and material

For containment and cleaning up Sweep up or vacuum up spillage and collect suitable container for disposal.

Avoid dust formulation.

---

## 7. HANDLING AND

### STORAGE

#### Handling

Precautions for safe handling Avoid dust formulation.

Provide for appropriate exhaust ventilation and dust collection at machinery.

In case of thermal processing, provide for extraction of vapors or adequate ventilation.

Advice on protection against Normal measures for preventive fire protection.

fire and explosion If dusts are formed; Take precautionary measures against static charges, keep away from sources of ignition.

#### Storage

Conditions for safe storage, Store dry. Close container tightly  
Including any incompatibilities.

---

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measure In case of thermal processing, provide for extraction of the vapor or adequate ventilation.  
In case of dust being formed, provide for adequate extraction.

Control parameters No data available.

### Personal protective equipment

Respiratory protection The wearing of a dust mask is sufficient in the event of dust occurring, operation  
E.g. during conveyance of the granulate or filter  
cleaning operation. Do not inhale vapors from hot  
product.

Should vapors inadvertently manage to permeate into the surrounding air during thermal processing,

Then gas masks fitted with filters designed to combat organic vapors (e.g. A2)  
or breathing apparatus with an or breathing apparatus with an  
independent air supply are to be worn.

Hand protection The wearing of protective gloves is not required if the granulate in question is handled at  
room temperature. Any areas of skin covered with dust must be washed immediately  
with soap and water as the powder draws out natural moisture from the skin.  
Use barrier cream regularly.

Protective heat insulating gloves are to be used during thermal processing.

Eye protection Safety glasses

Hygiene protection Smoking, eating and drinking should be prohibited in the application areas.

---

## 9. PHYSICAL AND CHEMICAL

PROPERTIES AND



INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETYDATASHEET

Order Odorless

### Information on basic physical and

chemical properties pH Not

applicable

Melting point/range 200-225°C

Boiling point/range Not applicable

Flashpoint Not applicable

Ignition temperature >350°C

Thermal decomposition >300°C

Explosiveness If dust develops, explosive dust/air mixture may form.

Vapor pressure not applicable

Density 1.0-1.2 g/cm<sup>3</sup>(30°C)

Water solubility Insoluble

### Further information

Other information The range of values given complies with the variation range of the product group.  
The specific physical chemical data can be available in the product information.

---

### 10. STABILITY AND REACTIVITY

Reactivity Stable

Chemicals Stability Stable under recommended storage conditions.

Possibility of hazardous reactions Do not bring hot smelter into contact with water (steam formation!)

Conditions to avoid Extremes of temperature and direct sunlight.

Hazardous decomposition product Decomposition products in combustion, chemical or thermal decomposition:  
Carbon monoxide, carbon dioxide, nitrogen oxides  
(NO<sub>x</sub>), organic products of decomposition

---

### 11. TOXICOLOGICAL INFORMATION

Further Information No harmful effects have become known as yet.

---

### 12. ECOLOGICAL INFORMATION

Further information on ecology The product is a water-insoluble, solid polymer which, under environmental conditions, is not expected to have a detrimental effects on plants, animals or microorganisms.

---

### 13. DISPOSAL CONSIDERATIONS

Product With respect to local regulations, e.g. dispose of to suitable waste incineration plant.

---

### 14. TRANSPORT INFORMATION

Not dangerous according to transport regulations.

---

### 15. REGULATORY

INFORMATION



INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETYDATASHEET

National Legislation

---

### 16. OTHER INFORMATION

#### Further information

The information provided in the Safety Data Sheet is corrected to the best of our knowledge, information and belief at the date of publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

---



Version 1.0

Revision Date 10/27/2015

This SDS adheres to the standards and regulatory requirements of the United States and may not meet the regulatory requirements in other countries.

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

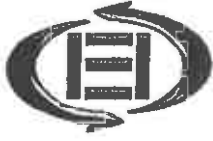
Product name : PA6 Resin  
Product Use : Polymer  
PA6 NG-110  
PA6 R95N  
PA6 R70N  
PA6 R50N  
PA6 R60N  
PA6 R40N  
PA6 R50BK  
PA6 8202 NC  
PA6 NG-101RG  
PA6 MAU  
PA6 120L  
PA6 NG-120  
PA6 100F  
PA6 100L  
PA6 NG-120C

Restrictions on use : For manufacturing and research use only

Manufacturer/Supplier : Intercontinental Export Import, Inc  
8815 Center Park Drive  
Suite 400  
Columbia MD, 21045

Product Information : +1-410-674-5600

## SECTION 2. HAZARDS IDENTIFICATION



INTERCONTINENTAL  
EXPORT IMPORT, INC

# SAFETY DATA SHEET

## PA6 RESIN

**Product hazard category**  
Combustible dust

**Label content**

Pictogram : not required

Signal word : Warning

Hazardous warnings : May form combustible dust concentrations in air.

Hazardous prevention  
Measures : not required

**Other hazards**





Version 1.0

Revision Date 10/27/2015

If small particles are generated during further processing, handling or by other means, may form combustible dust concentrations in air.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

This product does not contain any components that require disclosure according to OSHA Hazard Communication Standard 2012.

### SECTION 4. FIRST AID MEASURES

General advice	: No applicable data available.
Inhalation	: Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
Skin contact	: The material is not likely to be hazardous by skin contact, but cleaning the skin after use is advisable. Cool skin rapidly with cold water after contact with molten material. Do not peel polymer from the skin. Obtain medical treatment for thermal burn.
Eye contact	: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.
Ingestion	: No specific intervention is indicated. Consult a physician if necessary.
Most important symptoms/effects, acute and delayed	: No applicable data available.
Protection of first-aiders	: No applicable data available.
Notes to physician	: No applicable data available.

### SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Water, Foam, Dry chemical, Carbon dioxide (CO2)



Version 1.0

Revision Date 10/27/2015

- Unsuitable extinguishing media** : No applicable data available.
- Specific hazards** : Combustible. Large molten masses may ignite spontaneously in air. Water quenching is good practice. Minimize the generation and accumulation of dust. Failure or malfunction of temperature control systems on processing equipment, such as extruders, may create explosion hazards. (see also section 10) Carbon monoxide, Carbon dioxide.
- Special protective equipment for firefighters** : Wear self-contained breathing apparatus and protective suit.
- Further information** : Evacuate personnel and keep upwind of fire.

#### SECTION 6. ACCIDENTAL RELEASE MEASURES

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

- Safeguards (Personnel)** : Spilled material is a slipping hazard.
- Environmental precautions** : Do not discharge to streams, ponds, lakes or sewers.
- Spill Cleanup** : Spills of fine material should be cleaned using gentle sweeping or vacuuming. Cleaning methods (e.g. compressed air) which can generate potentially combustible dust clouds should not be used. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Use only non-sparking tools.
- Accidental Release Measures** : No applicable data available.

#### SECTION 7. HANDLING AND STORAGE

- Handling (Personnel)** : Open container only in well-ventilated area. Wash hands thoroughly after handling. Provide appropriate exhaust ventilation at dryers, machinery and at places where dust or volatiles can be generated. Do not breathe dust. Minimize the generation and accumulation of dust. Pneumatic conveying and other mechanical handling operations can generate combustible dust. Routine housekeeping should be instituted to ensure that dusts do not



Version 1.0

Revision Date 10/27/2015

accumulate on surfaces.

Handling (Physical Aspects) : No applicable data available.  
Dust explosion class : No applicable data available.

Storage : Store in a cool, dry place. Keep container closed to prevent contamination. Keep in an area equipped with sprinklers.

Storage period : No applicable data available.

Storage temperature : No applicable data available.

#### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls : General mechanical ventilation is normally adequate but use local exhaust where necessary to maintain exposures below acceptable limits. Use local exhaust to completely remove vapors and fumes liberated during hot processing from the work area.

Personal protective equipment  
Respiratory protection : Additives in this product do not present a respiration hazard unless the product is ground to a powder of respirable size and the dust is inhaled. All dusts are potentially injurious to the respiratory tract if respirable particles are generated and inhaled. A respiratory protection program that meets country requirements must be followed whenever workplace conditions warrant respirator use. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer. Consult the OSHA respiratory protection information located at 29CFR 1910.134. Use a positive pressure air supplied respirator if exposure levels are not known or there are any other circumstances where air purifying respirators may not provide adequate protection.

Hand protection : Additional protection: Wear leather or cotton gloves when grinding, sawing, routing, drilling or sanding., When handling hot material, use heat resistant gloves.

Eye protection : Wear safety glasses with side shields. Wear tightly fitting chemical splash goggles and face shield when possibility exists for eye and face contact due to spattering or splashing of molten material. A full-face mask respirator provides protection from eye irritation.

clothing and footwear.



INTERCONTINENTAL  
EXPORT IMPORT, INC

# SAFETY DATA SHEET

## PA6 RESIN

Skin and body protection : If there is a potential for contact with hot/molten material wear heat resistant

clothing and footwear.



Version 1.0

Revision Date 10/27/2015

**Exposure Guidelines**  
**Exposure Limit Values**

This product does not contain any exposure limits that require disclosure according to OSHA Hazard Communication Standard 2012.

**Non-Constituent(s)**

Dust (inhalable and respirable fraction)			
Permissible exposure limit:	(OSHA)	5 mg/m3	8 hr. TWA Respirable fraction.
Permissible exposure limit:	(OSHA)	15 mg/m3	8 hr. TWA Total dust.
TLV	(ACGIH)	3 mg/m3	TWA Respirable particles.
TLV	(ACGIH)	10 mg/m3	TWA Inhalable particles.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	
Physical state	: solid
Form	: pellets
Color	: natural
Odor	: none
Odor threshold	: No applicable data available.
pH	: Not applicable
Melting point/freezing point	: Melting point/range > 200 °C (> 392 °F)
Boiling point/boiling range	: Boiling point/boiling range Not applicable



Version 1.0

Revision Date 10/27/2015

Flash point	: Not applicable
Evaporation rate	: Not applicable
Flammability (solid, gas)	: May form combustible dust concentrations in air.
Upper explosion limit	: Not applicable
Lower explosion limit	: Not applicable
Vapor pressure	: Not applicable
Vapor density	: Not applicable
Specific gravity (Relative density)	: > 1
Water solubility	: Insoluble
Solubility(ies)	: No applicable data available.
Partition coefficient: n-octanol/water	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: >340 °C

Thermal decomposition of the resin accelerates above temperature listed.

Decomposition can occur below the recommended processing temperature limit.

Decomposition is a function of both processing temperature and time at that temperature.

Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable

#### SECTION 10. STABILITY AND REACTIVITY

Reactivity : Stable at normal ambient temperature and pressure.



Version 1.0

Revision Date 10/27/2015

- Chemical stability** : Stable at normal ambient temperature and pressure.
- Possibility of hazardous reactions** : Polymerization will not occur.
- Conditions to avoid** : Temperature > 340 °C (> 644 °F)  
Avoid prolonged exposure at or above the recommended processing temperatures.  
Decomposes on heating.  
At temperatures above the "conditions to avoid" temperature, thermal decomposition of the resin accelerates.  
Decomposition can occur below the recommended processing temperature limit.  
Decomposition is a function of both processing temperature and time at that temperature.
- Incompatible materials** : Strong acids Strong bases, Strongoxidizing agents
- Hazardous decomposition products** : Hazardous thermal decomposition products may include:  
Aldehydes, Nitrogen oxides (NOx), traces of hydrogen cyanide, Ammonia ,  
Carbon monoxide , Carbon dioxide, Cyclopentanone

## SECTION 11. TOXICOLOGICAL INFORMATION

### PA6 Resin

- Further information** : No data is available on the product itself. For additional toxicity data, write to the company address or call the non-emergency number shown in Section 1.

#### Carcinogenicity

The carcinogenicity classifications for this product and/or its ingredients have been determined according to HazCom 2012, Appendix A.6. The classifications may differ from those listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or those found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition).

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

## SECTION 12. ECOLOGICAL INFORMATION



Version 1.0

Revision Date 10/27/2015

**Additional ecological information** : No data is available on the product itself. Toxicity is expected to be low based on insolubility in water.

### SECTION 13. DISPOSAL CONSIDERATIONS

**Waste disposal methods - Product** : Preferred options for disposal are recycling or incineration with energy recovery. The high fuel value of this product makes incineration very desirable for material that cannot be recycled. Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations.

**Contaminated packaging** : No applicable data available.

### SECTION 14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

### SECTION 15. REGULATORY INFORMATION

**TSCA** : In compliance with TSCA Inventory requirements for commercial purposes.

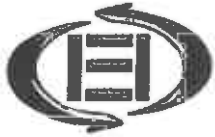
**SARA 313 Regulated Chemical(s)** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**PA Right to Know Regulated Chemical(s)** : Substances on the Pennsylvania Hazardous Substances List present at a concentration of 1% or more (0.01% for Special Hazardous Substances): None known.

**NJ Right to Know Regulated Chemical(s)** : Substances on the New Jersey Workplace Hazardous Substance List present at a concentration of 1% or more (0.1% for substances identified as carcinogens, mutagens or teratogens): None known.

**California Prop. 65** : Chemicals known to the State of California to cause cancer, birth defects or





INTERCONTINENTAL  
EXPORT IMPORT, INC

# SAFETY DATA SHEET

## PA6 RESIN

Version 1.0

Revision Date 10/27/2015

any other harm: none known

### SECTION 16. OTHER INFORMATION

**Restrictions for use** : Do not use Niche materials in medical applications involving implantation in the human body or contact with internal body fluids or tissues unless the material has been provided from Niche under a written contract that is consistent with Niche policy regarding medical applications and expressly acknowledges the contemplated use. For further information, please contact your Niche representative.

Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

Revision Date : 10/27/2015

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Significant change from previous version is denoted with a double bar.



Version 1.0

Revision Date 10/27/2015

This SDS adheres to the standards and regulatory requirements of the United States and may not meet the regulatory requirements in other countries.

### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : PA6 GLASS, MINERAL FILLED Resin  
Product Use : Polymer  
PA6 G13-110  
PA6 G33-110  
PA6 G43-110

Restrictions on use : For manufacturing and research use only

Manufacturer/Supplier : Intercontinental Export Import, Inc  
8815 Center Park Drive  
Suite 400  
Columbia MD, 21045

Product Information : +1-410-674-5600

### SECTION 2. HAZARDS IDENTIFICATION

Product hazard category  
Combustible dust

**Label content**

Pictogram : not required

Signal word : Warning

Hazardous warnings : May form combustible dust concentrations in air.



INTERCONTINENTAL  
EXPORT IMPORT, INC

# SAFETY DATA SHEET

## PA6 GLASS, MINERAL FILLED RESIN

Hazardous prevention : not required  
Measures

Other hazards



Version 1.0

Revision Date 10/27/2015

If small particles are generated during further processing, handling or by other means, may form combustible dust concentrations in air.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

This product does not contain any components that require disclosure according to OSHA Hazard Communication Standard 2012.

### SECTION 4. FIRST AID MEASURES

General advice	: No applicable data available.
Inhalation	: Move to fresh air in case of accidental inhalation of fumes from overheating or Combustion. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
Skin contact	: The material is not likely to be hazardous by skin contact, but cleaning the skin after use is advisable. Cool skin rapidly with cold water after contact with molten material. Do not peel polymer from the skin. Obtain medical treatment for thermal burn.
Eye contact	: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.
Ingestion	: No specific intervention is indicated. Consult a physician if necessary.
Most important Symptoms/effects, acute and delayed	: No applicable data available.
Protection of first-aiders	: No applicable data available.
Notes to physician	: No applicable data available.

### SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Water, Foam, Dry chemical, Carbon dioxide (CO<sub>2</sub>)



Version 1.0

Revision Date 10/27/2015

- Unsuitable extinguishing media : No applicable data available.
- Specific hazards : Combustible. Large molten masses may ignite spontaneously in air. Water quenching is good practice. Minimize the generation and accumulation of dust. Failure or malfunction of temperature control systems on processing equipment, such as extruders, may create explosion hazards. (see also section 10) Carbon monoxide, Carbon dioxide.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus and protective suit.
- Further information : Evacuate personnel and keep upwind of fire.

#### SECTION 6. ACCIDENTAL RELEASE MEASURES

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

- Safeguards (Personnel) : Spilled material is a slipping hazard.
- Environmental precautions : Do not discharge to streams, ponds, lakes or sewers.
- Spill Cleanup : Spills of fine material should be cleaned using gentle sweeping or vacuuming. Cleaning methods (e.g. compressed air) which can generate potentially combustible dust clouds should not be used. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Use only non-sparking tools.
- Accidental Release Measures : No applicable data available.

#### SECTION 7. HANDLING AND STORAGE

- Handling (Personnel) : Open container only in well-ventilated area. Wash hands thoroughly after handling. Provide appropriate exhaust ventilation at dryers, machinery and at places where dust or volatiles can be generated. Do not breathe dust. Minimize the generation and accumulation of dust. Pneumatic conveying and other mechanical handling operations can generate combustible dust. Routine housekeeping should be instituted to ensure that dusts do not



Version 1.0

Revision Date 10/27/2015

accumulate on surfaces.

- Handling (Physical Aspects) : No applicable data available.  
Dust explosion class : No applicable data available.  
Storage : Store in a cool, dry place. Keep container closed to prevent contamination.  
Keep in an area equipped with sprinklers.
- Storage period : No applicable data available.
- Storage temperature : No applicable data available.

#### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Engineering controls : General mechanical ventilation is normally adequate but use local exhaust where necessary to maintain exposures below acceptable limits. Use local exhaust to completely remove vapors and fumes liberated during hot processing from the work area.
- Personal protective equipment
- Respiratory protection : Additives in this product do not present a respiration hazard unless the product is ground to a powder of respirable size and the dust is inhaled. All dusts are potentially injurious to the respiratory tract if respirable particles are generated and inhaled. A respiratory protection program that meets country requirements must be followed whenever workplace conditions warrant respirator use. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer. Consult the OSHA respiratory protection information located at 29CFR 1910.134. Use a positive pressure air supplied respirator if exposure levels are not known or there are any other circumstances where air purifying respirators may not provide adequate protection.
- Hand protection : Additional protection: Wear leather or cotton gloves when grinding, sawing, routing, drilling or sanding. When handling hot material, use heat resistant gloves.
- Eye protection : Wear safety glasses with side shields. Wear tightly fitting chemical splash goggles and face shield when possibility exists for eye and face contact due to spattering or splashing of molten material. A full-face mask respirator provides protection from eye irritation.
- Skin and body protection : If there is a potential for contact with hot/molten material wear heat resistant clothing and footwear.



Version 1.0

Revision Date 10/27/2015

**Exposure Guidelines**  
**Exposure Limit Values**

This product does not contain any exposure limits that require disclosure according to OSHA Hazard Communication Standard 2012.

**Non-Constituent(s)**

Dust (inhalable and respirable fraction)			
Permissible exposure limit:	(OSHA)	5 mg/m <sup>3</sup>	8 hr. TWA Respirable fraction.
Permissible exposure limit:	(OSHA)	15 mg/m <sup>3</sup>	8 hr. TWA Total dust.
TLV	(ACGIH)	3 mg/m <sup>3</sup>	TWA Respirable particles.
TLV	(ACGIH)	10 mg/m <sup>3</sup>	TWA Inhalable particles.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	
Physical state	: solid
Form	: pellets
Color	: natural
Odor	: none
Odor threshold	: No applicable data available.
pH	: Not applicable
Melting point/freezing point	: Melting point/range > 200 °C (> 392 °F)
Boiling point/boiling range	: Boiling point/boiling range Not applicable



Version 1.0

Revision Date 10/27/2015

Flash point	: Not applicable
Evaporation rate	: Not applicable
Flammability (solid, gas)	: May form combustible dust concentrations in air.
Upper explosion limit	: Not applicable
Lower explosion limit	: Not applicable
Vapor pressure	: Not applicable
Vapor density	: Not applicable
Specific gravity (Relative density)	: > 1
Water solubility	: insoluble
Solubility(ies)	: No applicable data available.
Partition coefficient: n-octanol/water	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: >340 °C

Thermal decomposition of the resin accelerates above temperature listed.

Decomposition can occur below the recommended processing temperature limit.

Decomposition is a function of both processing temperature and time at that temperature.

Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable

## SECTION 10. STABILITY AND REACTIVITY

Reactivity : Stable at normal ambient temperature and pressure.





Version 1.0

Revision Date 10/27/2015

- Chemical stability** : Stable at normal ambient temperature and pressure.
- Possibility of hazardous reactions** : Polymerization will not occur.
- Conditions to avoid** : Temperature > 340 °C (> 644 °F)  
Avoid prolonged exposure at or above the recommended processing temperatures.  
Decomposes on heating.  
At temperatures above the "conditions to avoid" temperature, thermal decomposition of the resin accelerates.  
Decomposition can occur below the recommended processing temperature limit.  
Decomposition is a function of both processing temperature and time at that temperature.
- Incompatible materials** : Strong acids Strong bases, Strong oxidizing agents
- Hazardous decomposition products** : Hazardous thermal decomposition products may include:  
Aldehydes, Nitrogen oxides (NOx), traces of hydrogen cyanide, Ammonia ,  
Carbon monoxide, Carbon dioxide, Cyclopentanone

## SECTION 11. TOXICOLOGICAL INFORMATION

### PA6 GLASS, MINERAL FILLED Resin

- Further information** : No data is available on the product itself. For additional toxicity data, write to the company address or call the non-emergency number shown in Section 1.

#### Carcinogenicity

The carcinogenicity classifications for this product and/or its ingredients have been determined according to HazCom 2012, Appendix A.6. The classifications may differ from those listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or those found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition).

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

## SECTION 12. ECOLOGICAL INFORMATION



Version 1.0

Revision Date 10/27/2015

**Additional ecological information** : No data is available on the product itself. Toxicity is expected to be low based on insolubility in water.

### SECTION 13. DISPOSAL CONSIDERATIONS

**Waste disposal methods - Product** : Preferred options for disposal are recycling or incineration with energy recovery. The high fuel value of this product makes incineration very desirable for material that cannot be recycled. Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations.

**Contaminated packaging** : No applicable data available.

### SECTION 14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

### SECTION 15. REGULATORY INFORMATION

**TSCA** : In compliance with TSCA Inventory requirements for commercial purposes.

**SARA 313 Regulated Chemical(s)** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**PA Right to Know Regulated Chemical(s)** : Substances on the Pennsylvania Hazardous Substances List present at a concentration of 1% or more (0.01% for Special Hazardous Substances): None known.

**NJ Right to Know Regulated Chemical(s)** : Substances on the New Jersey Workplace Hazardous Substance List present at a concentration of 1% or more (0.1% for substances identified as Carcinogens, mutagens or teratogens): None known.

**California Prop. 65** : Chemicals known to the State of California to cause cancer, birth defects or



INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETY DATA SHEET

### PA6 GLASS, MINERAL FILLED RESIN

Version 1.0

Revision Date 10/27/2015

any other harm: none known

#### SECTION 16. OTHER INFORMATION

**Restrictions for use** : Do not use Niche materials in medical applications involving implantation in the human body or contact with internal body fluids or tissues unless the material has been provided from Niche under a written contract that is consistent with Niche policy regarding medical applications and expressly acknowledges the contemplated use. For further information, please contact your Niche representative.

Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

Revision Date : 10/27/2015

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Significant change from previous version is denoted with a double bar.



INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETY DATA SHEET

**Product Name: Aromatic Thermoplastic Polyester**

**Product Grade:**

LCP GF-320            LCP NG-125  
LCP GF-120           LCP NG-120

### Components

Material	CAS Number	%
AROMATIC THERMOPLASTIC POLYESTER		>40
FIBERGLASS		0-50
TALC	14807-96-6	0-50
GRAPHITE	7782-42-5	0-50
PIGMENTS		0-20
CARBON BLACK	1333-86-4	0-20
TITANIUM DIOXIDE	13463-67-7	0-9

### Components (Remarks)

Additives in this product do not present a respiration hazard unless the product is ground to a powder of respirable size and the dust is inhaled. All dusts are potentially injurious to the respiratory tract if respirable particles are generated and inhaled in sufficiently high concentrations. Good industrial hygiene practices, as with all dusts, should include precautions to prevent inhalation of respirable particles.

### Potential Health Effects

#### ADDITIONAL HEALTH EFFECTS

Read the datasheet for this product or the molding guide for this resin family.

#### FIBERGLASS

The mechanical action of the sharp fibers from Fiber Glass may cause skin irritation with discomfort or rash.

Eye contact with Fiber Glass particles may cause mechanical eye irritation with discomfort, tearing, or blurring of vision.



(HAZARDS IDENTIFICATION - Continued)

Inhalation of Fiber Glass particles may cause irritation of the upper respiratory passages, with coughing and discomfort.

Results from epidemiology studies suggest no causal relationship between Fiber Glass exposure and cancer. One epidemiology study does indicate a slight increase in lung cancer deaths. The evidence that fiber glass is related to these increased lung cancer deaths is considered weak.

Individuals with preexisting diseases of the lungs may have increased susceptibility to the toxicity of excessive exposures.

TALC

Short-term over-exposure by inhalation to Talc may cause irritation of the nose, throat and lungs with cough, difficulty breathing or shortness of breath. Long-term over-exposure may lead to chronic lung disease with impaired lung function and abnormal chest x-rays.

Increased susceptibility to the effects of Talc may be observed in persons with pre-existing disease of the lungs.

GRAPHITE

Long-term inhalation of Graphite dust or powder may cause chronic lung disorders with symptoms of lung insufficiency.

Individuals with preexisting diseases of the lungs may have increased susceptibility to the toxicity of excessive exposures.

CARBON BLACK

Immediate effects of overexposure to Carbon Black by inhalation may include irritation of the nose, throat, and lungs with cough, difficulty breathing or shortness of breath.

If particles from Carbon Black contact the eye, mechanical irritation with tearing, pain or blurred vision may result.

Significant skin permeation, and systemic toxicity, after contact with Carbon Black appears unlikely. There are no reports of human sensitization.

Epidemiologic studies demonstrate no significant risk of human cancer from exposure to Carbon Black. While some reports cite an increased incidence of pulmonary abnormalities, such as decreased pulmonary function and radiological changes among Carbon Black workers, other reports show no correlation between exposure and effects on pulmonary function or disease.

Increased susceptibility to the effects of Carbon Black may be observed in persons with pre-existing disease of the lungs.



INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETY DATA SHEET

### TITANIUM DIOXIDE

Short-term overexposure by inhalation to Titanium Dioxide may cause irritation of nose, throat, and lungs with cough, difficulty breathing or shortness of breath.

Repeated skin contact with Titanium Dioxide may cause drying or cracking of the skin in sensitive individuals.

Eye contact with Titanium Dioxide may cause eye irritation with tearing, pain or blurred vision.

### Carcinogenicity Information

The following components are listed by IARC, NTP, OSHA or ACGIH as carcinogens.

Material	IARC	NTP	OSHA	ACGIH
CARBON BLACK				2B
TITANIUM DIOXIDE				2B

### First Aid

#### INHALATION

No specific intervention is indicated as the compound is not likely to be hazardous by inhalation. Consult a physician if necessary. If exposed to fumes from overheating or combustion, move to fresh air. Consult a physician if symptoms persist.

#### SKIN CONTACT

The compound is not likely to be hazardous by skin contact, but cleansing the skin after use is advisable. If molten polymer gets on skin, cool rapidly with cold water. Do not attempt to peel polymer from skin. Obtain medical treatment for thermal burn.

#### EYE CONTACT

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

#### INGESTION



INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETY DATA SHEET

No specific intervention is indicated as compound is not likely to be hazardous by ingestion.

### Flammable Properties

Flash Point : Not Applicable Fire

and Explosion Hazards:

Like most organic materials in powder form, dust generated from this product may form a flammable dust-air mixture. Potential for a dust explosion may exist. Minimize the generation and accumulation of dust. Keep away from sources of ignition.

Large molten masses may ignite spontaneously in air. Water quenching of such masses is good practice.

Hazardous gases/vapors produced in fire are carbon monoxide, carbon dioxide.

### Extinguishing Media

Water, CO<sub>2</sub>, Foam, Dry Chemical.

### # Fire Fighting Instructions

Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus.

### Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) Sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

### Spill Clean Up

Spilled material is a slipping hazard. Sweep up to avoid slipping hazard.



INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETY DATA SHEET

### Handling (Personnel)

See FIRST AID and PERSONAL PROTECTIVE EQUIPMENT SECTIONS.

### Handling (Physical Aspects)

Minimize the generation and accumulation of dust.

### Storage

Store in a cool, dry place.

Store away from ignition sources, combustibles.

### Engineering Controls

**VENTILATION** When hot processing this material, use local and/or general exhaust ventilation to control the concentration of vapors and fumes below exposure limits.

In cutting or grinding operations with this material, use local exhaust to control the concentration of dust below exposure limits.

### Personal Protective Equipment Eye/Face

#### Protection

Wear safety glasses. Wear coverall chemical splash goggles and face shield when possibility exists for eye or face contact due to splashing or spraying of molten material. A full face mask positive-pressure air-supplied respirator provides protection from eye irritation.

#### Respirators

A NIOSH/MSHA approved air-purifying respirator with an organic vapor cartridge with a dust/mist filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known or any other circumstances where air-purifying respirators may not provide adequate protection.

During grinding, sawing, routing, drilling or sanding operations use a NIOSH/MSHA approved air-purifying respirator with dust/mist cartridge or canister if airborne particulate concentrations are expected to exceed permissible exposure levels.

#### Protective Clothing





INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETY DATA SHEET

If there is potential contact with hot/molten material, wear heat resistant clothing and footwear.

Wear leather or cotton gloves when grinding, sawing, routing, drilling or sanding.

### Exposure Guidelines

#### Exposure Limits

PEL (OSHA) : Particulates (Not Otherwise Regulated)  
15 mg/m<sup>3</sup>, 8 Hr. TWA, total dust  
5 mg/m<sup>3</sup>, 8 Hr. TWA, respirable dust

#### Other Applicable Exposure Limits FIBERGLASS

PEL (OSHA) : None Established  
TLV (ACGIH) : 5 mg/m<sup>3</sup>, 8 Hr.TWA, inhalable particulate  
A4

#### TALC

PEL (OSHA) : 20 mppcf (~3.3 mg/m<sup>3</sup>), respirable as 8 Hr TWA  
TLV (ACGIH) : 2 mg/m<sup>3</sup>, respirable dust, 8 Hr. TWA, A4  
Notice of Intended Changes (2007)  
1 mg/m<sup>3</sup>, 8 Hr. TWA, Respirable, A4

#### GRAPHITE

PEL (OSHA) : 5 mg/m<sup>3</sup>, respirable dust, 8 Hr. TWA TLV (ACGIH)  
: 2 mg/m<sup>3</sup>, respirable dust, 8 Hr. TWA AEL

#### CARBON BLACK

PEL (OSHA) : 3.5 mg/m<sup>3</sup>, 8 Hr. TWA  
TLV (ACGIH) : 3.5 mg/m<sup>3</sup>, 8 Hr. TWA, A4

#### TITANIUM DIOXIDE

PEL (OSHA) : 15 mg/m<sup>3</sup>, total dust, 8 Hr. TWA  
TLV (ACGIH) : 10 mg/m<sup>3</sup>, total dust, 8 Hr. TWA



INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETY DATA SHEET

### Material Safety Data Sheet

#### # Physical Data

Melting Point	: 335 C (635 F)
Solubility in Water	: Insoluble
Odor	: No Distinct Odor.
Specific Gravity	: >1
Form	: Pellets.

#### Chemical Stability

Stable at normal temperatures and storage conditions.  
decomposition may occur above 400 C (752 F).

Hazardous

#### Incompatibility with Other Materials

Incompatible or can react with strong oxidizers.

#### Decomposition

Hazardous gases or vapors can be released, including toxic and flammable carbon monoxide (CO), carbon dioxide, phenol, and, trace organic acids and esters.

#### Polymerization

Polymerization will not occur.

#### Animal Data

##### Fiber Glass

Skin irritation and mild eye irritation occurs in animals, but these effects are attributed primarily to mechanical damage rather than a chemical effect.

The effects in mice from single exposure by intratracheal instillation with Fiber Glass include an inflammatory response. Repeated inhalation exposures invoked pulmonary macrophage reactions similar to biologically inert dusts.

Tests in some animals with Fiber Glass demonstrate carcinogenic activity. However, these studies were by artificial implantation or injection of fine glass fibers into the chest, abdominal cavity, or trachea and are judged to be irrelevant to industrial exposure. Chronic inhalation exposure of animals to fiber glass at low concentrations produced minimal fibrosis in one study and no adverse effects in a different study.



INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETY DATA SHEET

### Material Safety Data Sheet

#### (TOXICOLOGICAL INFORMATION - Continued)

No animal test reports are available to define mutagenic, developmental, or reproductive hazards.

#### Talc

Oral LD50: > 5000 mg/kg in rats  
Inhalation 5 hour ALC: > 22 mg/L in rats

Long-term exposure by ingestion to Talc caused no significant decrease in life span.

A single exposure by inhalation to high doses of Talc caused irregular respiration and lacrimation but no evidence of an inflammatory reaction. Repeated exposure caused no adverse effects on survival or histological changes. Long-term exposure in rats caused chronic inflammation, impaired pulmonary function and histopathological changes of the lungs.

One lifetime inhalation study reports an increased incidence of lung and adrenal tumors in rats exposed to Talc. The lung tumors and chronic inflammation occurred at dust levels which overwhelmed the animal's lung clearance mechanism and, therefore, are of questionable biological relevance for man. The adrenal tumors are unlikely to be a direct effect of Talc exposure and are of questionable relevance. No increases in tumors were observed in mice. Talc has not caused developmental toxicity in animals. No animal data are available to define the reproductive toxicity of Talc. Tests have shown that Talc does not cause genetic damage in bacterial or mammalian cell cultures, or in animals.

Animal data indicate that Talc does not cause permanent genetic damage in reproductive cells of mammals (does not cause heritable genetic damage).

#### Graphite

Oral LD50: > 5,000 mg/kg in rats

Graphite was not an eye irritant when tested in animals.

No animal test reports are available to define carcinogenic, mutagenic, developmental, or reproductive hazards of Graphite.

#### Carbon Black

Oral ALD, rat: > 25,100 mg/kg

Repeated inhalation exposure of animals to Carbon Black caused inflammation of the respiratory tract, lungs and emphysema.

Repeated exposure to high doses of Carbon Black by ingestion or skin contact caused no significant toxicological effects.



INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETY DATA SHEET

No adequate studies have been conducted in animals to define the carcinogenicity of Carbon Black by ingestion. In several skin painting studies using various Carbon Blacks no carcinogenicity was observed. Tests by inhalation for carcinogenicity in rats show significant increases in lung tumors in female rats but not male rats. In another study using female mice exposed by inhalation to Carbon Black there was no increase in the incidence of respiratory tract tumors. Researchers conducting the rat Inhalation studies believe that these effects probably result from the massive accumulation of small dust particles in the lung which overwhelms the normal lung clearance mechanisms. This represents "lung overload" phenomenon, rather than a specific chemical effect of the dust particle in the lung.

Tests have shown that this material does not cause genetic damage in bacterial or mammalian cell cultures. Tests in animals for genetic toxicity have produced mostly negative results. No animal data are available to define developmental or reproductive toxicity.

### Titanium Dioxide

Oral ALD:	> 24,000 mg/kg in rats
Dermal ALD:	> 10,000 mg/kg in rabbits Inhalation
4 hour ALC:	> 6.82 mg/L in rats

Animal testing indicates Titanium Dioxide is a moderate eye irritant and a slight skin irritant, but is not a skin sensitizer in animals.

Repeated and long term ingestion of Titanium Dioxide caused no significant toxicological effects.

Repeated exposure by inhalation to high doses of Titanium Dioxide caused a typical dust cell reaction.

In lifetime inhalation studies at levels up to 250 mg/m<sup>3</sup>, no compound-related clinical signs of toxicity were seen in the exposed animals. Slight pulmonary fibrosis was seen at 50 and 250 mg/m<sup>3</sup> respirable dust levels but not at 10 mg/m<sup>3</sup>. There was no evidence of cancer in animals exposed to 10 or 50 mg/m<sup>3</sup> respirable Titanium Dioxide.

Microscopic lung tumors were seen in 17 percent of the rats exposed to 250 mg/m<sup>3</sup> respirable Titanium Dioxide. The lung tumors seen in the rat were different from common human lung cancers, relative to anatomic type and location, occurred only at dust levels which overwhelmed the animal's lung clearance mechanism and, therefore, are of questionable biological relevance for man. In lifetime animal feeding tests at levels up to 50,000 ppm, Titanium Dioxide showed no evidence of cancer or other significant adverse effects in either rats or mice. No animal data are available to define the developmental or reproductive toxicity of Titanium Dioxide. Tests have shown that Titanium Dioxide does not cause genetic damage in bacterial or mammalian cell cultures, or in animals.



INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETY DATA SHEET

### Ecotoxicological Information

#### AQUATIC TOXICITY:

No information is available.  
water.

Toxicity is expected to be low based on insolubility in  
Do not discharge to streams, ponds, lakes or sewers.

### Waste Disposal

Preferred options for disposal are (1) recycling, (2) incineration with energy recovery, and (3) landfill. The high fuel value of this product makes option 2 very desirable for material that cannot be recycled, but incinerator must be capable of scrubbing out acidic combustion products. Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations.

### Shipping Information

Not regulated in transportation by DOT/IMO/IATA.

### U.S. Federal Regulations

TSCA Inventory Status : In compliance with TSCA Inventory Requirements for commercial purposes.



INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETY DATA SHEET

**Product Name : Polyamide Resin**

**Product Grade:**

HTN GF-302RG

HTN MAU

HTN 120L

HTN 501

HTN 502

HTN 504

HTN 502-300

HTN IM-100

### Company Identification

MANUFACTURER/DISTRIBUTOR

PHONE NUMBERS: 410-675-5600

---

### COMPOSITION/INFORMATION ON INGREDIENTS

---

#### # Components

Material	CAS Number	%
POLYAMIDE COPOLYMER		>40
FIBERGLASS		<60
CARBON BLACK	1333-86-4	<2

#### Components (Remarks)

Material is not known to contain Toxic Chemicals under Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR parts 372.

Additives in this product do not present a respiration hazard unless the product is ground to a powder of respirable size and the dust is inhaled. All dusts are potentially injurious to the respiratory tract if respirable particles are generated and inhaled in sufficiently high concentrations. Good industrial hygiene practices, as with all dusts, should include precautions to prevent inhalation of respirable particles.

#### Potential Health Effects

##### ADDITIONAL HEALTH EFFECTS

Read the datasheet for this product or the molding guide for this resin family.



No data are available. Based on similarity to other chemically related polymers, the base polymer in the products listed on the MSDS is predicted to have low toxicity by ingestion, skin contact or inhalation. Fumes generated by overheating or during processing may cause irritation of eyes, nose and throat, with redness, itching, and coughing.

#### **FIBERGLASS**

The mechanical action of the sharp fibers from Fiber Glass may cause skin irritation with discomfort or rash.

Eye contact with Fiber Glass particles may cause mechanical eye irritation with discomfort, tearing, or blurring of vision.

Inhalation of Fiber Glass particles may cause irritation of the upper respiratory passages, with coughing and discomfort.

Results from epidemiology studies suggest no causal relationship between Fiber Glass exposure and cancer. One epidemiology study does indicate a slight increase in lung cancer deaths. The evidence that fiber glass is related to these increased lung cancer deaths is considered weak.

Individuals with preexisting diseases of the lungs may have increased susceptibility to the toxicity of excessive exposures.

#### **CARBON BLACK**

Immediate effects of overexposure to Carbon Black by inhalation may include irritation of the nose, throat, and lungs with cough, difficulty breathing or shortness of breath.

If particles from Carbon Black contact the eye, mechanical irritation with tearing, pain or blurred vision may result.

Significant skin permeation, and systemic toxicity, after contact with Carbon Black appears unlikely. There are no reports of human sensitization.

Epidemiologic studies demonstrate no significant risk of human cancer from exposure to Carbon Black. While some reports cite an increased incidence of pulmonary abnormalities, such as decreased pulmonary function and radiological changes among Carbon Black workers, other reports show no correlation between exposure and effects on pulmonary function or disease.

Increased susceptibility to the effects of Carbon Black may be observed in persons with pre-existing disease of the lungs.



(HAZARDS IDENTIFICATION - Continued)

**Carcinogenicity Information**

The following components are listed by IARC, NTP, OSHA or ACGIH as carcinogens.

Material	IARC	NTP	OSHA	ACGIH
CARBON BLACK				2B

**First Aid**

**INHALATION**

No specific intervention is indicated as the compound is not likely to be hazardous by inhalation. Consult a physician if necessary. If exposed to fumes from overheating or combustion, move to fresh air. Consult a physician if symptoms persist.

**SKIN CONTACT**

The compound is not likely to be hazardous by skin contact, but cleansing the skin after use is advisable. If molten polymer gets on skin, cool rapidly with cold water. Do not attempt to peel polymer from skin. Obtain medical treatment for thermal burn.

**EYE CONTACT**

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

**INGESTION**

No specific intervention is indicated as compound is not likely to be hazardous by ingestion.

**Flammable Properties**

Flash Point : Not Applicable Fire

**and Explosion Hazards:**

Like most organic materials in powder form, dust generated from this product may form a flammable dust-air mixture. Potential for a dust explosion may exist. Minimize the generation and accumulation of dust. Keep away from sources of ignition.

Large molten masses may ignite spontaneously in air. Water quenching of such masses is good practice.

Hazardous gases/vapors produced in fire are ammonia, carbon monoxide, traces of hydrogen cyanide, Aldehydes.





**(FIRE FIGHTING MEASURES - Continued)**

**Extinguishing Media**

Water, Foam, Dry Chemical, CO2.

**Fire Fighting Instructions**

Keep personnel removed and upwind of fire.  
breathing apparatus.

Wear self-contained

**Safeguards (Personnel)**

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL)  
Sections before proceeding with clean-up. Use appropriate  
PERSONAL PROTECTIVE EQUIPMENT during clean-up.

**Spill Clean Up**

Spilled material is a slipping hazard. Sweep up to  
avoid slipping hazard.

**Handling (Personnel)**

See FIRST AID and PERSONAL PROTECTIVE EQUIPMENT SECTIONS.

**Handling (Physical Aspects)**

Minimize the generation and accumulation of dust.

**Storage**

Store in a cool, dry place. Keep containers tightly closed to prevent  
moisture absorption and contamination.

**Engineering Controls**

**VENTILATION** When hot processing this material, use local and/or general exhaust  
ventilation to control the concentration of vapors and fumes below exposure limits.

In cutting or grinding operations with this material, use local exhaust to control the  
concentration of dust below exposure limits.



(EXPOSURE CONTROLS/PERSONAL PROTECTION - Continued)

Personal Protective Equipment

Eye/Face Protection

Wear safety glasses. Wear coverall chemical splash goggles and face shield when possibility exists for eye or face contact due to splashing or spraying of molten material. A full face mask positive-pressure air-supplied respirator provides protection from eye irritation.

Respirators

A NIOSH/MSHA approved air-purifying respirator with an organic vapor cartridge with a dust/mist filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known or any other circumstances where air-purifying respirators may not provide adequate protection.

During grinding, sawing, routing, drilling or sanding operations use a NIOSH/MSHA approved air-purifying respirator with dust/mist cartridge or canister if airborne particulate concentrations are expected to exceed permissible exposure levels.

Protective Clothing

If there is potential contact with hot/molten material, wear heat resistant clothing and footwear.

Wear leather or cotton gloves when grinding, sawing, routing, drilling or sanding.

Exposure Guidelines

Exposure Limits  
PEL (OSHA)

: Particulates (Not Otherwise Regulated)  
15 mg/m<sup>3</sup>, 8 Hr. TWA, total dust  
5 mg/m<sup>3</sup>, 8 Hr. TWA, respirable dust

Other Applicable Exposure Limits

FIBERGLASS  
PEL (OSHA)  
TLV (ACGIH)

: None Established  
: 5 mg/m<sup>3</sup>, 8 Hr. TWA, inhalable particulate  
A4

CARBON BLACK

PEL (OSHA) : 3.5 mg/m<sup>3</sup>, 8 Hr. TWA  
TLV (ACGIH) : 3.5 mg/m<sup>3</sup>, 8 Hr. TWA, A4

Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

#### Physical Data

Melting Point : >200 C (>392 F)  
Solubility in Water : Insoluble  
Odor : None  
Form : Pellets  
Specific Gravity : >1

#### Chemical Stability

Stable at normal temperatures and storage conditions.

#### Conditions to Avoid

Temperatures above 340 C (644 F).

#### Incompatibility with Other Materials

Incompatible or can react with strong acids, oxidizing agents.

#### Decomposition

Hazardous gases or vapors can be released, including Cyclopentanone, carbon monoxide, Aldehydes, ammonia.

#### Polymerization

Polymerization will not occur.

#### Animal Data

##### Fiber Glass

Skin irritation and mild eye irritation occurs in animals, but these effects are attributed primarily to mechanical damage rather than a chemical effect.

The effects in mice from single exposure by intratracheal instillation with Fiber Glass include an inflammatory response. Repeated inhalation exposures invoked pulmonary macrophage reactions similar to biologically inert dusts.

Tests in some animals with Fiber Glass demonstrate carcinogenic activity. However, these studies were by artificial implantation or injection of fine glass fibers into the chest, abdominal cavity, or trachea and are judged to be irrelevant to industrial exposure. Chronic inhalation exposure of animals to fiber glass at low concentrations produced minimal fibrosis in one study and no adverse effects in a different study.

No animal test reports are available to define mutagenic, developmental, or reproductive hazards.

##### Carbon Black

Oral ALD, rat: > 25,100 mg/kg

Repeated inhalation exposure of animals to Carbon Black caused inflammation of the respiratory tract, lungs and emphysema.

Repeated exposure to high doses of Carbon Black by ingestion or skin contact caused no significant toxicological effects.

No adequate studies have been conducted in animals to define the carcinogenicity of Carbon Black by ingestion. In several skin painting studies using various Carbon Blacks no carcinogenicity was observed. Tests by inhalation for carcinogenicity in rats show significant increases in lung tumors in female rats but not male rats. In another study using female mice exposed by inhalation to Carbon Black there was no increase in the incidence of respiratory tract tumors. Researchers conducting the rat inhalation studies believe that these effects probably result from the massive accumulation of small dust particles in the lung which overwhelms the normal lung clearance mechanisms. This represents "lung overload" phenomenon, rather than a specific chemical effect of the dust particle in the lung.

Tests have shown that this material does not cause genetic damage in bacterial or mammalian cell cultures. Tests in animals for genetic toxicity have produced mostly negative results. No animal data are available to define developmental or reproductive toxicity.

#### Ecotoxicological Information

##### AQUATIC TOXICITY:

No information is available in water. sewers.

Toxicity is expected to be low based on insolubility. Do not discharge to streams, ponds, lakes or

#### Waste Disposal

Preferred options for disposal are (1) recycling, (2) incineration with energy recovery, and (3) landfill. The high fuel value of this product makes option 2 very desirable for material that cannot be recycled, but incinerator must be capable of scrubbing out acidic combustion products. Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations.

#### Shipping Information

Not regulated in transportation by DOT/IMO/IATA.

#### U.S. Federal Regulations

TSCA Inventory Status : In compliance with TSCA Inventory Requirements for commercial purposes.

#### State Regulations (U.S.) STATE

#### RIGHT-TO-KNOW

No substances on the state hazardous substances list, for the states indicated below, are used in the manufacture of products on this Material Safety Data Sheet, with the exceptions indicated.

SUBSTANCES ON THE PENNSYLVANIA HAZARDOUS SUBSTANCES LIST PRESENT AT A CONCENTRATION OF 1 % OR MORE (0.01% FOR SPECIAL HAZARDOUS SUBSTANCES) - Carbon black.

WARNING - SUBSTANCES KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM- None known.



INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETY DATA SHEET

The State of California, under Proposition 65, regulates Carbon Black - airborne, unbound particles of respirable size as a carcinogen. In this product, carbon black is not supplied in the form regulated in California.

SUBSTANCES ON THE NEW JERSEY WORKPLACE HAZARDOUS SUBSTANCE LIST PRESENT AT A CONCENTRATION OF 1% OR MORE (0.1% FOR SUBSTANCES IDENTIFIED AS CARCINOGENS, MUTAGENS OR TERATOGENS)- Carbon black.



**SECTION 1. IDENTIFICATION**

Product name: HCR :  
Product Code:

HCR C5  
HCR C9  
HCR C59  
HCR 200  
HCR 250  
HCR 700  
HCR MAU

**Manufacturer or supplier's details**

Company name of supplier :

Address :

Telephone : 410-674-5600

**Recommended use of the chemical and restrictions on use**

Recommended use : Adhesive  
coatings

Restrictions on use : None known.

---

**SECTION 2. HAZARDS IDENTIFICATION**

**GHS Classification**

Combustible dust

**GHS label elements**

Signal Word : Warning

Hazard Statements : If small particles are generated during further processing,  
handling or by other means, may form combustible dust  
concentrations in air.

Precautionary Statements : **Disposal:**  
P501 Dispose of contents/ container to an approved waste  
disposal plant.

**Other hazards**

None known.

---

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Ingredients**



INTERCONTINENTAL  
EXPORT IMPORT, INC

## SAFETY DATA SHEET

---



---

Chemical name	CAS-No.	Concentration (% w/w)
hydrocarbon resin	proprietary	> 99
modifiers/additives	not applicable	< 1

---

#### SECTION 4. FIRST AID MEASURES

- If inhaled : Move to fresh air.  
Treat symptomatically.  
If symptoms persist, call a physician.
- In case of skin contact : Wash off with soap and water.  
If symptoms persist, call a physician.  
Cool skin rapidly with cold water after contact with molten material.  
Do not peel solidified product off the skin.  
Burns must be treated by a physician.
- In case of eye contact : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- If swallowed : Seek medical advice.
- Most important symptoms and effects, both acute and delayed : The molten product can cause serious burns.
- Notes to physician : Treat symptomatically.
- 

#### SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Water spray  
Dry chemical  
Carbon dioxide (CO<sub>2</sub>)
- Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread Fire.
- Specific hazards during fire fighting : Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.
- Hazardous combustion products : No hazardous combustion products are known
- Further information : Minimize dust generation and accumulation.
- Special protective equipment for fire-fighters : Wear an approved positive pressure self-contained breathing Apparatus in addition to standard fire fighting gear.
- 

#### SECTION 6. ACCIDENTAL RELEASE MEASURES

---





- 
- Personal precautions, protective equipment and emergency procedures** : Wear appropriate personal protective equipment.  
Local authorities should be advised if significant spillages  
Cannot be contained.
- Environmental precautions** : Avoid release to the environment.
- Methods and materials for containment and cleaning up** : Sweep up and shovel into suitable containers for disposal.
- 

#### **SECTION 7. HANDLING AND STORAGE**

- Advice on protection against fire and explosion** : Minimize dust generation and accumulation.
- Advice on safe handling** : Wash thoroughly after handling.  
Use only in area provided with appropriate exhaust ventilation.  
Minimize dust generation and accumulation.
- Conditions for safe storage** : Keep tightly closed.
- 

#### **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

##### **Ingredients with workplace control parameters**

Contains no substances with occupational exposure limit values.

- Engineering measures** : Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

##### **Personal protective equipment**

- Respiratory protection** : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. Wear respiratory protection when its use is identified for Certain contributing scenario.

##### **Hand protection**

- Remarks** : Wear suitable gloves. When handling hot material, use heat Resistant gloves.

- Eye protection** : Safety glasses  
Wear a face shield when working with molten material.

- Skin and body protection** : Wear suitable protective clothing.



- 
- |                     |   |
|---------------------|---|
| Protective measures | : Ensure that eye flushing systems and safety showers are located close to the working place. |
| Hygiene measures    | : Handle in accordance with good industrial hygiene and safety practice.                      |
- 

#### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- |                                     |   |
|-------------------------------------|---|
| Appearance                          | : flakes, molten  |
| Color                               | : amber   |
| Odor                                | : hydrocarbon-like  |
| Softening point                     | : 91.11 - 97.22 °C  |
| Flash point                         | : 290.55 °C<br>Method: Cleveland open cup   |
| Evaporation rate                    | : not determined  |
| Flammability (solid, gas)           | : May form combustible dust concentrations in air during processing, handling or other means    |
| Relative density                    | : 0.95 (25 °C)  |
| Solubility(ies)<br>Water solubility | : negligible  |
| Decomposition temperature           | : Thermal stability not tested. Low stability hazard expected at Normal operating temperatures. |
| Viscosity<br>Viscosity, kinematic   | : not determined  |
- 

#### SECTION 10. STABILITY AND REACTIVITY

- |                                    |  |
|------------------------------------|--|
| Reactivity                         | : None reasonably foreseeable.                         |
| Chemical stability                 | : Stable under normal conditions.                      |
| Possibility of hazardous reactions | : Stable   |
| Conditions to avoid                | : Minimize dust generation and accumulation.           |
| Incompatible materials             | : Strong oxidizing agents                              |
| Hazardous decomposition products   | : Carbon monoxide<br>Carbon dioxide (CO <sub>2</sub> ) |



---

**SECTION 11. TOXICOLOGICAL INFORMATION**

**Acute toxicity**

Not classified based on available information.

**Product:**

Acute oral toxicity : Acute toxicity estimate: 2,001 mg/kg  
Method: Calculation method

**Ingredients:**

**Hydrocarbon resin:**

Acute oral toxicity : LD50 Oral (Rat): > 2,000 mg/kg  
Assessment: The substance or mixture has no acute oral toxicity

**Skin corrosion/irritation**

Not classified based on available information.

**Serious eye damage/eye irritation**

Not classified based on available information.

**Respiratory or skin sensitization**

Skin sensitization: Not classified based on available information.

Respiratory sensitization: Not classified based on available information.

**Germ cell mutagenicity**

Not classified based on available information.

**Carcinogenicity**

Not classified based on available information.

**IARC** No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed Human carcinogen by IARC.

**OSHA** No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**NTP** No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**Reproductive toxicity**

Not classified based on available information.

**STOT-single exposure**

Not classified based on available information.

**STOT-repeated exposure**

Not classified based on available information.

**Aspiration toxicity**

Not classified based on available information.

**Information on likely routes of exposure**

**Product:**

- Inhalation : Remarks: None known.
- Skin contact : Remarks: The molten product can cause serious burns.
- Eye contact : Remarks: The molten product can cause serious burns.
- Ingestion : Remarks: None known.

---

**SECTION 12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Ingredients:**

**hydrocarbon resin:**

Toxicity to fish : LC50 (Cyprinus carpio (Carp)): > 10 mg/l  
Exposure time: 48 h

**Persistence and degradability**

**Ingredients:**

**Hydrocarbon resin:**

Biodegradability : Concentration: 20 mg/l  
Result: Not readily biodegradable.  
Biodegradation: 12.7 %  
Exposure time: 28 d

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Other adverse effects**

**Product:**

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances  
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App. A + B).



---

**SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods**

Waste from residues : Dispose of in accordance with local regulations.

---

**SECTION 14. TRANSPORT INFORMATION**

**International Regulations**

**IATA-DGR**

Not regulated as a dangerous good

**IMDG-Code**

UN number : UN 3257  
Proper shipping name : ELEVATED TEMPERATURE LIQUID, N.O.S.  
(molten resin)  
Class : 9  
Packing group : III  
Labels : 9  
EmS Code : F-A, S-P  
Marine pollutant : no

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

**Domestic regulation**

**49 CFR**

UN/ID/NA number : UN 3257  
Proper shipping name : ELEVATED TEMPERATURE LIQUID, N.O.S.  
(molten resin)  
Class : 9  
Packing group : III  
Labels : Class 9 - Miscellaneous Dangerous Goods  
ERG Code : 128  
Marine pollutant : no  
Remarks : 9, Packing Group III when liquid is offered for transport or is transported, in bulk packaging, at or above 100°C and below its flash point; otherwise, not regulated.

---

**SECTION 15. REGULATORY INFORMATION**

**EPCRA - Emergency Planning and Community Right-to-Know**

SARA 311/312 Hazards : Fire Hazard



**SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) Reporting levels established by SARA Title III, Section 313.

**Clean Air Act**

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App. A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCOMI Intermediate or Final VOC's (40 CFR 60.489).

**Clean Water Act**

This product does not contain any Hazardous Substances listed under the U.S. Clean Water Act, Section 311, and Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. Clean Water Act, Section 311, and Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

**TSCA list**

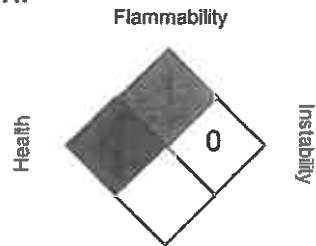
No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.



**Further information**

**NFPA:**



**HMISIII:**

HEALTH	1
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight, 2 = Moderate, 3 = High, 4 = Extreme, \* = Chronic

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and re- lease and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text



---

---

## 1. IDENTIFICATION

---

**Product name:** EPS

**Product Grade:** EPS

**Recommended use of the chemical and restrictions on use**  
**Identified uses:** Thermal insulation.

### COMPANY IDENTIFICATION

**Customer Information Number:** 410-674-5600

**EMERGENCY TELEPHONE NUMBER:** 410-674-5600

---

---

## 2. HAZARDS IDENTIFICATION

---

### Hazard classification

This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

### Other hazards

No data available

---

---

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

---

**Chemical nature:** Construction and composite applications  
this product is an article.

Component	CASRN	Concentration
2-Propenenitrile, polymer with ethenylbenzene	9003-54-7	> 60.0 - < 100.0 %
Styrene, polymers	9003-53-6	<= 10.0 %
1,1,1,2-Tetrafluoroethane	811-97-2	>= 5.0 - <= 10.0 %

### Note

Extruded polystyrene foam containing a halogenated flame retardant system.

---

---

## 4. FIRST AID MEASURES

---

### Description of first aid measures

**General advice:** If potential for exposure exists refer to Section 8 for specific personal protective equipment.

**Inhalation:** Move person to fresh air; if effects occur, consult a physician.

**Skin contact:** Wash off with plenty of water.

**Eye contact:** Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a





physician, preferably an ophthalmologist.

**Ingestion:** No emergency medical treatment necessary.

**Most important symptoms and effects, both acute and delayed:** Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

**Indication of any immediate medical attention and special treatment needed**

**Notes to physician:** No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

---

## 5. FIREFIGHTING MEASURES

---

**Suitable extinguishing media:** Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam.

**Unsuitable extinguishing media:** No data available

**Special hazards arising from the substance or mixture**

**Hazardous combustion products:** During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. In smoldering or flaming conditions, carbon monoxide, carbon dioxide and carbon are generated. Combustion products may include and are not limited to: Hydrogen halides. Based on combustion toxicity testing, the effects of combustion from this foam are not more acutely toxic than the effects of combustion from common building materials such as wood.

**Unusual Fire and Explosion Hazards:** Mechanical cutting, grinding or sawing can cause formation of dusts. To reduce the potential for dust explosion, do not permit dust to accumulate. This product contains a flame retardant to inhibit accidental ignition from small fire sources. This plastic foam product is combustible and should be protected from flames and other high heat sources. For more information, contact Dow. Dense smoke is produced when product burns.

**Advice for firefighters**

**Fire Fighting Procedures:** Keep people away. Isolate fire and deny unnecessary entry. Soak thoroughly with water to cool and prevent re-ignition. If material is molten, do not apply direct water stream. Use fine water spray or foam. Cool surroundings with water to localize fire zone.

**Special protective equipment for firefighters:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

---

## 6. ACCIDENTAL RELEASE MEASURES

---

**Personal precautions, protective equipment and emergency procedures:** Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

**Environmental precautions:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

**Methods and materials for containment and cleaning up:** Contain spilled material if possible. Collect in suitable and properly labeled containers. See Section 13, Disposal Considerations, for additional information.

---

## 7. HANDLING AND STORAGE

---



**Precautions for safe handling:** Fabrication methods which involve cutting into this product may release the blowing agent(s) remaining in the cells. Use ventilation adequate to keep exposures below recommended exposure limits. See the safety datasheet. Do not enter confined spaces unless adequately ventilated. Mechanical cutting, grinding or sawing can cause formation of dusts. To reduce the potential for dust explosion, do not permit dust to accumulate. This product is combustible and may constitute a fire hazard if improperly used or installed. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

**Conditions for safe storage:** When large quantities of this product are stored or fabricated, blowing agents may be released. Released blowing agents may thermally decompose to form gases which may accelerate corrosion or rust formation of heaters, boilers, gas fired recirculating air furnaces or heaters, or gas water heaters.

**Storage stability**

**Shelf life:** Use within 360 Month

---

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

---

**Exposure controls**

**Engineering controls:** Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

**Individual protection measures**

**Eye/face protection:** Eye protection should not be necessary. For fabrication operations safety glasses (with side shields) are recommended. If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles.

**Skin protection**

**Hand protection:** Use gloves to protect from mechanical injury. Selection of gloves will depend on the task.

**Other protection:** No precautions other than clean body-covering clothing should be needed.

**Respiratory protection:** Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. In dusty or misty atmospheres, use an approved particulate respirator. When respiratory protection is required for certain operations, including but not limited to saw, router or hot-wire cutting, use an approved air-purifying respirator.

The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

---

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

---

**Appearance**

<b>Physical state</b>	Board
<b>Color</b>	White
<b>Odor</b>	None
<b>Odor Threshold</b>	Odorless
<b>pH</b>	Not applicable
<b>Melting point/range</b>	90 - 130 °C (194 - 266 °F) <i>Estimated.</i>
<b>Freezing point</b>	Not applicable
<b>Bolling point (760 mmHg)</b>	Not applicable
<b>Flash point</b>	closed cup Not applicable



<b>Evaporation Rate (Butyl Acetate = 1)</b>	Not applicable
<b>Flammability (solid, gas)</b>	Not expected to form explosive dust-air mixtures.
<b>Lower explosion limit</b>	Not applicable
<b>Upper explosion limit</b>	Not applicable
<b>Vapor Pressure</b>	Not applicable
<b>Relative Vapor Density (air = 1)</b>	Not applicable
<b>Relative Density (water = 1)</b>	0.027 - 0.064 <i>Estimated.</i>
<b>Water solubility</b>	Insoluble in water
<b>Partition coefficient: n-octanol/water</b>	No data available
<b>Auto-ignition temperature</b>	354 °C (669 °F) <i>ASTM D1929</i>
<b>Decomposition temperature</b>	No test data available
<b>Kinematic Viscosity</b>	Not applicable
<b>Explosive properties</b>	No
<b>Oxidizing properties</b>	No
<b>Molecular weight</b>	No test data available

NOTE: The physical data presented above are typical values and should not be construed as a specification.

---

## **10. STABILITY AND REACTIVITY**

---

**Reactivity:** No dangerous reaction known under conditions of normal use.

**Chemical stability:** Thermally stable at typical use temperatures.

**Possibility of hazardous reactions:** Polymerization will not occur.

**Conditions to avoid:** Avoid temperatures above 300°C (572°F) Exposure to elevated temperatures can cause product to decompose. Avoid direct sunlight.

**Incompatible materials:** Avoid contact with oxidizing materials. Avoid contact with: Aldehydes. Amines. Esters. Liquid fuels. Organic solvents.

**Hazardous decomposition products:** Does not normally decompose. Evolution of small amounts of hydrogen halides occur when heated over 250°C (482°F). Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Aromatic compounds. Aldehydes. Ethylbenzene. Hydrogen halides. Polymer fragments. Styrene. Under high heat, non-flaming conditions, small amounts of aromatic hydrocarbons such as styrene and Ethylbenzene are generated.

---

## **11. TOXICOLOGICAL INFORMATION**

---

*Toxicological information appears in this section when such data is available.*



**Acute toxicity**

**Acute oral toxicity**

Swallowing is unlikely because of the physical state. Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

As product: Single dose oral LD50 has not been determined.

**Acute dermal toxicity**

Skin absorption is unlikely due to physical properties.

As product: The dermal LD50 has not been determined.

**Acute inhalation toxicity**

Dust may cause irritation to upper respiratory tract (nose and throat). Fumes/vapors released during thermal operations such as hot wire cutting may cause respiratory irritation. Concentrations of the blowing agents anticipated incidental to proper handling are expected to be well below those which cause acute inhalation effects and below exposure guidelines.

The LC50 has not been determined.

**Skin corrosion/irritation**

essentially nonirritating to skin.

Mechanical injury only.

**Serious eye damage/eye irritation**

Solid or dust may cause irritation or corneal injury due to mechanical action.

Fumes/vapor released during thermal operations such as hot-wire cutting may cause eye irritation.

**Sensitization**

Relevant data not available.

For respiratory sensitization:

Relevant data not available.

**Specific Target Organ Systemic Toxicity (Single Exposure)**

Available data are inadequate to determine single exposure specific target organ toxicity.

**Specific Target Organ Systemic Toxicity (Repeated Exposure)**

Based on available data, repeated exposures are not anticipated to cause significant adverse effects. Additives are encapsulated in the product and are not expected to be released under normal processing conditions or foreseeable emergency.

**Carcinogenicity**

Relevant data not available.

**Teratogenicity**

Contains a component(s) that is/are encapsulated in the product and are not expected to be released under normal processing conditions or foreseeable emergency

**Reproductive toxicity**

Contains a component(s) that is/are encapsulated in the product and are not expected to be released under normal processing conditions or foreseeable emergency

**Mutagenicity**



Relevant data not available.

**Aspiration Hazard**

Based on physical properties, not likely to be an aspiration hazard.

**COMPONENTS INFLUENCING TOXICOLOGY:**

**2-Propenenitrile, polymer with ethenylbenzene**

**Acute oral toxicity**

LD50, Rat, > 5,000 mg/kg Estimated.

**Acute dermal toxicity**

The dermal LD50 has not been determined.

For similar material(s): LD50, Rabbit, > 2,000 mg/kg Estimated.

**Styrene, polymers**

**Acute oral toxicity**

Single dose oral LD50 has not been determined.

**Acute dermal toxicity**

The dermal LD50 has not been determined.

---

---

## 12. ECOLOGICAL INFORMATION

---

*Ecotoxicological information appears in this section when such data is available.*

**Toxicity**

**Acute toxicity to fish**

Not expected to be acutely toxic to aquatic organisms.

**Bioaccumulative potential**

**Bioaccumulation:** No bioconcentration is expected because of the relatively high molecular weight (MW greater than 1000).

**Mobility in soil**

In the terrestrial environment, material is expected to remain in the soil.



In the aquatic environment, material is expected to float.

---

### **13. DISPOSAL CONSIDERATIONS**

---

**Disposal methods:** DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Recycler. Reclaimer. Landfill. Incinerator or other thermal destruction device.

---

### **14. TRANSPORT INFORMATION**

---

**DOT**

Not regulated for transport

**Classification for SEA transports (IMO-IMDG):**

Not regulated for transport

**Transport in bulk  
according to Annex I or II  
of MARPOL 73/78 and the  
IBC or IGC Code**

Consult IMO regulations before transporting ocean bulk

**Classification for AIR transports (IATA/ICAO):**

Not regulated for transport

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

---

### **15. REGULATORY INFORMATION**

---

**OSHA Hazard Communication Standard**

This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.



**Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312**

This product is not a hazardous chemical under 29CFR 1910.1200, and therefore is not covered by Title III of SARA.

**Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313**

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**Pennsylvania Worker and Community Right-To-Know Act:**

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

**California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)**

This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

**United States TSCA Inventory (TSCA)**

The product meets the definition of an article and is exempt from inventory requirements.

---

---

**16. OTHER INFORMATION**

---

---

**Revision**

Identification Number: 101195574 / A001 / Issue Date: 09/04/2015 / Version: 11.0

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

**Legend**

TWA	8-hr TWA
US WEEL	USA. Workplace Environmental Exposure Levels (WEEL)

**Information Source and References**

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

THE DOW CHEMICAL COMPANY urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an MSDS from another source or if you are not sure that the MSDS you have is current, please contact us for the most current version.



---

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1 Product identifier : CAP**

Product code:

CAP 120L  
CAP 705  
CAP 714  
CAP 720  
CAP 971P  
CAP 961  
CAP 961B  
CAP 700  
CAP 251  
CAP 740  
CAP MAU

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

Use of the Sub-  
stance/Mixture : Polymer

Recommended restrictions  
on use : None known.

**1.3 Details of the supplier of the safety datasheet**

Company :

Telephone : +14106745600





---

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Classification (REGULATION (EC) No1272/2008)**

Not a hazardous substance or mixture.

### 2.2 Label elements

**Labeling (REGULATION (EC) No 1272/2008)**

Not a hazardous substance or mixture.

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or Higher.

---

## SECTION 3: Composition/information on ingredients

### 3.1 Mixtures

#### Components

Chemical name	CAS-No. EC-No. Registration number	Classification	Concentration (% w/w)
cellulose acetate propionate	9004-39-1		100

For explanation of abbreviations see section 16.

---

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- If inhaled** : Move to fresh air.  
Treat symptomatically.  
If symptoms persist, call a physician.
- In case of skin contact** : Wash off with soap and water.  
If symptoms persist, call a physician.  
Cool skin rapidly with cold water after contact with molten material.  
Do not peel solidified product off the skin.  
Burns must be treated by a physician.
- In case of eye contact** : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
Remove contact lenses, if present and easy to do. Continue rinsing.
- If swallowed** : Seek medical advice.



---

**4.2 Most important symptoms and effects, both acute and delayed**

Risks : The molten product can cause serious burns.

**4.3 Indication of any immediate medical attention and special treatment needed**

Treatment : Treat symptomatically.

---

**SECTION 5: Firefighting measures**

**5.1 Extinguishing media**

Suitable extinguishing media : Water spray  
Dry chemical  
Carbon dioxide (CO<sub>2</sub>)

Unsuitable extinguishing media: Do not use a solid water stream as it may scatter and spread fire.

**5.2 Special hazards arising from the substance or mixture**

Specific hazards during fire-fighting : Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Hazardous combustion products : No hazardous combustion products are known

**5.3 Advice for firefighters**

Special protective equipment for firefighters : Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear.

Further information : Minimize dust generation and accumulation.

---

**SECTION 6: Accidental release measures**

**6.1 Personal precautions, protective equipment and emergency procedures**

Personal precautions : Wear appropriate personal protective equipment.  
Local authorities should be advised if significant spillages cannot be contained.

**6.2 Environmental precautions**

Environmental precautions : Avoid release to the environment.

**6.3 Methods and material for containment and cleaning up**

Methods for cleaning up : Sweep up and shovel into suitable containers for disposal.

**6.4 Reference to other sections**

For personal protection see section 8.

---

**SECTION 7: Handling and storage**



---

**7.1 Precautions for safe handling**

- Advice on safe handling** : Mixing cellulose esters in a nonpolar hydrocarbon, such as Toluene or xylene may result in the buildup of static electricity, which can cause a flash fire or an explosion. When adding cellulose ester to any flammable liquid, an inert gas atmosphere should be maintained within the vessel.
- Advice on protection against fire and explosion** : Minimize dust generation and accumulation.
- Hygiene measures** : Handle in accordance with good industrial hygiene and safety Practice.
- Dust explosion class** : St 2 - strong explosion



---

**7.2 Conditions for safe storage, including any incompatibilities**

Requirements for storage areas and containers : Keep container tightly closed.

**7.3 Specific enduses(s)**

Specific use(s) : Polymer

---

**SECTION 8: Exposure controls/personal protection**

**8.1 Control parameters**

**8.2 Exposure controls**

**Engineering measures**

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

**Personal protective equipment**

Eye protection : Safety glasses  
Wear a face shield when working with molten material.

**Hand protection**

Remarks : Wear suitable gloves. When handling hot material, use heat resistant gloves.

Skin and body protection : Wear suitable protective clothing.

Respiratory protection : If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Protective measures : Ensure that eye flushing systems and safety showers are Located close to the working place.

---

**SECTION 9: Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

Appearance : powder

Color : white

Odor : slight

Odor Threshold : not determined

pH : Not applicable



---

Melting point/range	: 188 - 210°C
	: Not determined
Flashpoint	: Not applicable
Evaporation rate	: not determined
Upperexplosionlimit	: not determined
Lowerexplosionlimit	: not determined
Vapourpressure	: not determined
Relative vapor density	: not determined
Relative density	: 1,22 -1,26
Solubility (ies)	
Water solubility	: negligible



---

Partition coefficient-n- octanol/water: No data available

Auto-ignition temperature : 432°C  
Method: ASTM D2155

Decomposition temperature : Thermal stability not tested. Low stability hazard expected at Normal operating temperatures.

Viscosity  
Viscosity, dynamic : not determined

Viscosity, kinematic : not determined

Explosive properties : No data  
available

Oxidizing properties : No data available

#### 9.2 Other information

Dust explosion class : St 2 - strong explosion

---

### SECTION 10: Stability and reactivity

#### 10.1 Reactivity

None reasonably foreseeable. minimal stability  
Stable under normal conditions.

#### 10.2 Possibility of hazardous reactions

#### 10.3 Conditions to avoid

Conditions to avoid : Minimize dust generation and accumulation.

#### 10.4 Incompatible materials

Materials to avoid : Strong oxidizing agents

#### 10.5 Hazardous decomposition products

Carbon monoxide, Carbon dioxide (CO<sub>2</sub>)

---

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

##### acute toxicity

Not classified based on available information.

##### Skin corrosion/irritation

Not classified based on available information.

##### Serious eye damage/eye irritation



---

Not classified based on available information.

**Respiratory or skin sensitization**

Skin sensitization: Not classified based on available information.

Respiratory sensitization: Not classified based on available information.

**Germ cell mutagen city**

Not classified based on available information.

**Carcinogenicity**

Not classified based on available information.

**Reproductive toxicity**

Not classified based on available information.

**STOT - single exposure**

Not classified based on available information.

**STOT - repeated exposure**

Not classified based on available information.

**Aspiration toxicity**

Not classified based on available information.

**Experience with human exposure**

**Product:**

Inhalation : Remarks: None known.

Skin contact : Remarks: Molten material will produce thermal burns.

Eye contact : Remarks: Molten material will produce thermal burns.

Ingestion : Remarks: None known.

---

**SECTION 12: Ecological information**

**12.1 Toxicity**

No data available

**12.2 Persistence and degradability**

No data available

**12.3 Bioaccumulative potential**

No data available

**12.4 Mobility in soil**

No data available

**12.5 Results of PBT and vPvB assessment**

**Product:**

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..



---

**12.6 Other adverse effects**

No data available

---

**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods**

Product : Dispose of in accordance with local regulations.

---

**SECTION 14: Transport information**

**14.1 UNnumber**

Not regulated as a dangerous good

**14.2 UN proper shipping name**

Not regulated as a dangerous good

**14.3 Transport hazard class(es)**

Not regulated as a dangerous good

**14.4 Packing group**

Not regulated as a dangerous good

**14.5 Environmental hazards**

Not regulated as a dangerous good

**14.6 Special precautions for user**

Not applicable

**14.7 Transport in bulk according to Annex I of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

---

**SECTION 15: Regulatory information**

**15.1 Safety, health and environmental regulations/legislations specific for the substance or mix- true**

REACH - Candidate List of Substances of Very High Concern for Authorization (Article 59) : Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable





---

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

Not applicable

**The components of this product are reported in the following inventories:**

DSL	: All components of this product are on the CanadianDSL
AICS	: On the inventory, or in compliance with the inventory
ENCS	: On the inventory, or in compliance with the inventory
ISHL	: On the inventory, or in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
PICCS	: On the inventory, or in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory
TCSI	: On the Inventory, or in compliance with the inventory
TSCA	: On the inventory, or in compliance with the inventory

#### 15.2 Chemical safety assessment

None.

---

#### SECTION 16: Other Information

##### Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labeling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN

- Standard of the German Institute for Standardization; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organization for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration;



---

NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

**Further information**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.



# SAFETY DATA SHEET

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product name: CAB

#### Product Grade:

CAB MAU  
CAB 120  
CAB 120P  
CAB 305  
CAB 375  
CAB 501  
CAB 505  
CAB 511  
CAB 601  
CAB 602  
CAB 800  
CAB 801  
CAB 802  
CAB 805  
CAB 971P  
CAB  
0038120  
CAB 00531  
CAB 650  
CAB 651  
CAB  
0038105  
CAB 704  
CAB 120L  
SOLUS 2300  
SOLUS 2100  
ENSURE  
100  
ENSURE  
120  
CAB 320



**1.2 Relevant identified uses of the substance or mixture and uses advised against**

Identified uses: Polymer

Uses advised against: None known.

**1.3 Details of the supplier of the safety data sheet**

Manufacturer /Supplier

**1.4 Emergency telephone number: 410-674-5600**

**SECTION 2: Hazards identification**



**2.1 Classification of the substance or mixture**

The product has not been classified as hazardous according to the legislation in force.

**Hazard summary**

**Physical Hazards:** Not classified as hazardous.

**Health Hazards**

**Inhalation:** None known.

**Eye contact:** Molten material will produce thermal burns.

**Skin Contact:** Molten material will produce thermal burns.

**Ingestion:** None known.

**Other Health Effects:** None known.

**Environmental hazards:** None known.

**2.2 Label Elements** not applicable

**2.3 Other hazards:** Powdered material may form explosive dust-air mixtures.

**SECTION 3: Composition/information on ingredients**

**3.1 / 3.2 Substances / Mixtures**

**General information:**

Chemical name	Concentration	Additional Identification	Notes
cellulose acetate butyrate	100%	CAS-No.: 9004-38-8 EC No.: 618-381-2	

Explanation for Notes (if applicable):

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

# This substance has workplace exposure limit(s).

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

**Classification**

Chemical name	Classification		Notes
cellulose acetate butyrate	DSD:	This substance is not classified according to Directive 67/548/EEC.	
	CLP:	NOT CLASS.	



The full text for all R-phrases and H-statements is displayed in section 16.

#### SECTION 4: First aid measures

##### 4.1 Description of first aid measures

**Inhalation:** Move to fresh air. Treat symptomatically. Get medical attention if symptoms persist.

**Eye contact:** Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention if symptoms persist. If molten material contacts the eye, immediately flush with plenty of water for at least 15 minutes. Get medical attention immediately.

**Skin Contact:** Wash with soap and water. Get medical attention if symptoms occur. If burned by contact with hot material, cool molten material adhering to skin as quickly as possible with water, and see a physician for removal of adhering material and treatment of burn. Get medical attention.

**Ingestion:** Seek medical advice.

**4.2 Most important symptoms and effects, both acute and delayed:** Burns should be treated as thermal burns. The material will come off as healing occurs; therefore, immediate removal from the skin is not necessary.

##### 4.3 Indication of any immediate medical attention and special treatment needed

**Hazards:** Contact with molten substance/product may cause severe burns to skin and eyes.

**Treatment:** Treat symptomatically.

#### SECTION 5: Firefighting measures

**General Fire Hazards:** Material can accumulate static charges which may cause an electrical spark (ignition source). Use proper bonding and/or grounding procedures.

##### 5.1 Extinguishing media

**Suitable extinguishing media:** Water spray. Dry chemical. Carbon Dioxide.

**Unsuitable extinguishing media:** None known.

**5.2 Special hazards arising from the substance or mixture:** Powdered material may form explosive dust-air mixtures.

##### 5.3 Advice for firefighters



**Special fire fighting procedures:**

Minimize dust generation and accumulation.

**Special protective equipment for fire-fighters:**

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

#### **SECTION 6: Accidental release measures**

**6.1 Personal precautions, protective equipment and emergency procedures:**

Wear appropriate personal protective equipment.

**6.2 Environmental Precautions:**

Not regarded as dangerous for the environment.

**6.3 Methods and material for containment and cleaning up:**

Sweep up and place in a clearly labeled container for chemical waste.

**Notification Procedures:**

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

#### **SECTION 7: Handling and storage:**

**7.1 Precautions for safe handling:**

Avoid contact with molten material. Mixing cellulose esters in a nonpolar hydrocarbon, such as toluene or xylene, may result in the buildup of static electricity, which can cause a flash fire or an explosion. When adding cellulose ester to any flammable liquid, an inert gas atmosphere should be maintained within the vessel.

**7.2 Conditions for safe storage, including any incompatibilities:**

Keep container closed.

**7.3 Specific end use(s):**

Polymer

#### **SECTION 8: Exposure controls/personal protection**

**8.1 Control Parameters**

**Occupational Exposure Limits**

Country specific exposure limits have not been established or are not applicable unless listed below.

**8.2 Exposure controls**

**Appropriate engineering controls:**

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.



**Individual protection measures, such as personal protective equipment**

<b>General information:</b>	Eye bath. Washing facilities.
<b>Eye/face protection:</b>	It is a good industrial hygiene practice to minimize eye contact. Wear a face shield when working with molten material.
<b>Skin protection</b>	
<b>Hand Protection:</b>	It is a good industrial hygiene practice to minimize skin contact. When material is heated, wear gloves to protect against thermal burns.
<b>Other:</b>	No data available.
<b>Respiratory Protection:</b>	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information.
<b>Hygiene measures:</b>	Observe good industrial hygiene practices.
<b>Environmental Controls:</b>	No data available.

**SECTION 9: Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

**Appearance**

<b>Physical state:</b>	solid
<b>Form:</b>	Powder
<b>Color:</b>	White
<b>Odor:</b>	Slight, Characteristic
<b>Odor Threshold:</b>	Not determined.
<b>pH:</b>	No data available.
<b>Melting Point</b>	230 - 240 °C
<b>Boiling Point:</b>	No data available.
<b>Flash Point:</b>	not applicable, combustible solid
<b>Evaporation Rate:</b>	Not determined.
<b>Flammability (solid, gas):</b>	No data available.
<b>Flammability Limit - Upper (%)-:</b>	No data available.
<b>Flammability Limit - Lower (%)-:</b>	No data available.
<b>Vapor pressure:</b>	Not determined.
<b>Vapor density (air=1):</b>	No data available.
<b>Specific Gravity:</b>	> 1 (estimated)





**Solubility(ies)**

<b>Solubility in Water:</b>	Negligible
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Autoignition Temperature:</b>	No data available.
<b>Decomposition Temperature:</b>	Thermal stability not tested. Low stability hazard expected at normal operating temperatures.
<b>Dynamic viscosity:</b>	No data available.
<b>Kinematic viscosity:</b>	Not determined.
<b>Explosive properties:</b>	No data available.
<b>Oxidizing properties:</b>	No data available.
<b>Dust Explosion Class:</b>	St 2 - strong explosion

**SECTION 10: Stability and reactivity**

<b>10.1 Reactivity:</b>	None known. Materials containing similar structural groups are normally stable.
<b>10.2 Chemical Stability:</b>	Not fully evaluated.
<b>10.3 Possibility of Hazardous Reactions:</b>	None known.
<b>10.4 Conditions to Avoid:</b>	Avoid dust formation.
<b>10.5 Incompatible Materials:</b>	Strong oxidizing agents.
<b>10.6 Hazardous Decomposition Products:</b>	Carbon Monoxide. Carbon Dioxide.

**SECTION 11: Toxicological information**

**Information on likely routes of exposure**

<b>Inhalation:</b>	None known.
<b>Ingestion:</b>	None known.
<b>Skin Contact:</b>	Molten material will produce thermal burns.
<b>Eye contact:</b>	Molten material will produce thermal burns.

**11.1 Information on toxicological effects**

**Acute toxicity**

<b>Oral Product:</b>	No data available.
----------------------	--------------------



**Specified substance(s)**  
cellulose acetate butyrate      Oral LD-50: (Rat): > 3.200 mg/kg (highest dose tested)

**Dermal Product:**      No data available.

**Specified substance(s)**  
cellulose acetate butyrate      Dermal LD-50: (Guinea Pig): > 1.000 mg/kg (highest dose tested)

**Inhalation Product:**      No data available.

**Specified substance(s)**  
cellulose acetate butyrate      No data available.

**Repeated dose toxicity Product:**      No data available.

**Specified substance(s)**  
cellulose acetate butyrate      No data available.

**Skin Corrosion/Irritation: Product:**      No data available.

**Specified substance(s)**  
cellulose acetate butyrate      (Guinea Pig, 24 h): slight

**Serious Eye Damage/Eye Irritation: Product:**      No data available.

**Specified substance(s)**  
cellulose acetate butyrate      No data available.

**Respiratory or Skin Sensitization: Product:**      No data available.

**Specified substance(s)**  
cellulose acetate butyrate      Skin Sensitization: - non-sensitizing

**Mutagenicity**

**In vitro Product:**      No data available.

**Specified substance(s)**  
cellulose acetate butyrate      No data available.



<b>In vivo</b>	
<b>Product:</b>	No data available.
<b>Specified substance(s)</b>	
cellulose acetate butyrate	No data available.
<b>Carcinogenicity</b>	
<b>Product:</b>	No data available.
<b>Reproductive toxicity</b>	
<b>Toxicity to reproduction</b>	
<b>Product:</b>	No data available.
<b>Developmental toxicity</b>	
<b>Product:</b>	No data available.
<b>Specific Target Organ Toxicity - Single Exposure</b>	
<b>Product:</b>	No data available.
<b>Specified substance(s)</b>	
cellulose acetate butyrate	No data available.
<b>Specific Target Organ Toxicity - Repeated Exposure</b>	
<b>Product:</b>	No data available.
<b>Specified substance(s)</b>	
cellulose acetate butyrate	No data available.
<b>Aspiration Hazard</b>	
<b>Product:</b>	No data available.
<b>Specified substance(s)</b>	
cellulose acetate butyrate	No data available.
<b>Other Adverse Effects:</b>	No data available.

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Acute toxicity

##### Fish

**Product:** No data available.

**Specified substance(s)**



cellulose acetate butyrate	No data available.
<b>Aquatic Invertebrates</b>	
<b>Product:</b>	No data available.
<b>Specified substance(s)</b>	
cellulose acetate butyrate	No data available.
<b>Chronic Toxicity</b>	
<b>Fish</b>	
<b>Product:</b>	No data available.
<b>Specified substance(s)</b>	
cellulose acetate butyrate	No data available.
<b>Aquatic Invertebrates</b>	
<b>Product:</b>	No data available.
<b>Specified substance(s)</b>	
cellulose acetate butyrate	No data available.
<b>Toxicity to Aquatic Plants</b>	
<b>Product:</b>	No data available.
<b>Specified substance(s)</b>	
cellulose acetate butyrate	No data available.

## 12.2 Persistence and Degradability

<b>Biodegradation</b>	
<b>Product:</b>	No data available.
<b>Specified substance(s)</b>	
cellulose acetate butyrate	No data available.
<b>Biological Oxygen Demand:</b>	
<b>Product</b>	No data available.
<b>Specified substance(s)</b>	
cellulose acetate butyrate	No data available.
<b>Chemical Oxygen Demand:</b>	
<b>Product</b>	No data available.
<b>Specified substance(s)</b>	
cellulose acetate butyrate	No data available.
<b>BOD/COD Ratio</b>	
<b>Product</b>	No data available.
<b>Specified substance(s)</b>	
cellulose acetate butyrate	No data available.

## 12.3 Bioaccumulative Potential



<b>Product:</b>	No data available.
<b>Specified substance(s)</b> cellulose acetate butyrate	No data available.
<b>12.4 Mobility in Soil:</b>	No data available.
<b>Known or predicted distribution to environmental compartments</b> cellulose acetate butyrate	No data available.
<b>12.5 Results of PBT and vPvB assessment:</b>	No data available.
cellulose acetate butyrate	No data available.
<b>12.6 Other Adverse Effects:</b>	No data available.

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

**General Information:** The generation of waste should be avoided or minimized wherever possible. Comply with requirements of waste disposal legislation and any local authority requirements.

**Disposal methods:** Dispose of waste and residues in accordance with local authority requirements. Incinerate.

#### European Waste Codes

Waste codes should be assigned by the user based on the application for which the product was used. According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.

The following Waste Codes are only suggestions. Any waste marked with an asterisk (\*) is considered as a hazardous waste pursuant to Directive 91/689/EEC on hazardous waste, and subject to the provisions of that Directive unless Article 1(5) of that Directive applies.

### SECTION 14: Transport information

*Important Note: Shipping descriptions may vary based on mode of transport, quantities, pack age size, and/or origin and destination. Consult your company's Hazardous Materials/Dangerous Goods expert for information specific to your situation.*

#### **ADR/RID**

Class not regulated

**IMDG - International Maritime Dangerous Goods Code**



Class not regulated

IATA

Class not regulated

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture.:

**TSCA (US Toxic Substances Control Act):** This product is listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

**DSL (Canadian Domestic Substances List) and CEPA (Canadian Environmental Protection Act):** This product is listed on the DSL. Any impurities present in this product are exempt from listing.

**AICS / NICNAS (Australian Inventory of Chemical Substances and National Industrial Chemicals Notification and Assessment Scheme):** This product is listed on AICS or otherwise complies with NICNAS.

**MITI (Japanese Handbook of Existing and New Chemical Substances):** This product is listed in the Handbook or has been approved in Japan by new substance notification.

**ECL (Korean Toxic Substances Control Act):** This product is listed on the Korean inventory or otherwise complies with the Korean Toxic Substances Control Act.

**Philippines Inventory (PICCS):** All components of this product are listed on the Philippine Inventory or otherwise comply with PICCS.

**Inventory of Existing Chemical Substances in China:** All components are listed on the Inventory of Existing Chemicals Substances in China (IECSC) or are covered under a polymer exemption. Imports may be restricted. Please contact Eastman Chemical Company, Product Safety and Health, for import details.

15.2 Chemical safety assessment:                      None.

## SECTION 16: Other information

Revision Information:                      New SDS

Key literature references and sources for data:                      No data available.



**Wording of the R-phrases  
and H-statements in section 2  
and 3:**

NOT CLASS = Not classified.

**Training information:**

No data available.

**Issue Date:**

**SDS No.:**

**Disclaimer:**

This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.



# SAFETY DATA SHEET

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product Name: CA Product Grade:

CA MAU  
CA 120P  
CA 120L  
CA 320S  
CA 398-10  
CA 398-3  
CA 361P  
CA 971P  
CA 361P  
CA 394-60S  
CA 561P  
CA 398-30  
CA 0055304  
CA 120  
SMASE

#### Additional identification

Chemical name: cellulose acetate  
CAS-No.: 9004-35-7

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Polymer

Uses advised against: None known.

### 1.3 Details of the supplier of the safety datasheet

Manufacturer /Supplier

1.4 Emergency telephone number: 410-674-5600

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

The product has not been classified as hazardous according to the legislation in force.

#### Hazard summary

Physical hazards: Not classified as hazardous.

#### Health hazards

Inhalation: None known.

Eye contact: Molten material will produce thermal burns.





**Skin contact:** Molten material will produce thermal burns.

**Ingestion:** None known.

**Other Health Effects:** None known.

**Environmental hazards:** Not regarded as dangerous for the environment.

**2.2 Label elements** Not applicable

**2.3 Other hazards:** None known.

**SECTION 3: Composition/information on ingredients**

**3.1 / 3.2 Substances / Mixtures**

**General Information:**

Chemical name	Concentration	Additional Identification	Notes
cellulose acetate	100%	CAS-No.: 9004-35-7 EC No.: 618-380-7	

Explanation for Notes (if applicable):

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

# This substance has work place exposure limit(s). PBT:

persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

**Classification**

Chemical name	Classification		Notes
cellulose acetate	DSD:	This substance is not classified according to Directive 67/548/EEC.	
	CLP:	NOT CLASS ,	

The full text for all R- and H-phrases is displayed in section 16.

**SECTION 4: First aid measures**

**4.1 Description of first aid measures**

**Inhalation:** Move to fresh air. Treat symptomatically. Get medical attention if symptoms Persist.

**Eye contact:** Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention if symptoms persist. If molten material contacts the eye, immediately flush with plenty of water for at least 15 minutes. Get medical attention Immediately.

**Skin contact:** Wash with soap and water. Get medical attention if symptoms occur. If burned by contact with hot material, cool molten material adhering to skin as quickly as possible with water, and see a physician for removal of Adhering material and treatment of burn. Get medical attention.

**Ingestion:** Seek medical advice.



<b>4.2 Most important symptoms and effects, both acute and delayed:</b>	Burns should be treated as thermal burns. The material will come off as Healing occurs; therefore, immediate removal from the skin is not necessary.
<b>4.3 Indication of any immediate medical attention and special treatment needed</b>	
<b>Hazards:</b>	Contact with molten substance/product may cause severe burns to skin and Eyes.
<b>Treatment:</b>	Treat symptomatically.

### **SECTION 5: Firefighting measures**

<b>General fire hazards:</b>	Material can accumulate static charges which may cause an electrical Spark (ignition source). Use proper bonding and/or grounding procedures.
<b>5.1 Extinguishing media</b>	
<b>Suitable extinguishing media:</b>	Water spray. Dry chemical. Carbon Dioxide.
<b>Unsuitable extinguishing media:</b>	None known.
<b>5.2 Special hazards arising from the substance or mixture:</b>	Powdered material may form explosive dust-air mixtures.
<b>5.3 Advice for firefighters</b>	
<b>Special fire fighting procedures:</b>	Minimize dust generation and accumulation.
<b>Special protective equipment for fire-fighters:</b>	Self-contained breathing apparatus and full protective clothing must be Worn in case of fire.

### **SECTION 6: Accidental release measures**

<b>6.1 Personal precautions, protective equipment and emergency procedures:</b>	Wear appropriate personal protective equipment.
<b>6.2 Environmental precautions:</b>	Not regarded as dangerous for the environment.
<b>6.3 Methods and material for containment and cleaning up:</b>	Sweep up and place in a clearly labeled container for chemical waste.
<b>Notification Procedures:</b>	In the event of a spill or accidental release, notify relevant authorities in Accordance with all applicable regulations.

### **SECTION 7: Handling and storage:**

<b>7.1 Precautions for safe handling:</b>	Avoid contact with molten material.
<b>7.2 Conditions for safe storage, including any incompatibilities:</b>	Keep from contact with oxidizing materials. Keep container closed.
<b>7.3 Specific end use(s):</b>	Polymer



## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

Country specific exposure limits have not been established or are not applicable unless listed below.

### 8.2 Exposure controls

#### Appropriate engineering controls:

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an Acceptable level.

#### Individual protection measures, such as personal protective equipment

**General Information:** Eye bath. Washing facilities.

**Eye/face protection:** It is a good industrial hygiene practice to minimize eye contact. Wear a face Shield when working with molten material.

#### Skin protection

**Hand protection:** It is a good industrial hygiene practice to minimize skin contact. When Material is heated, wear gloves to protect against thermal burns.

**Other:** No data available.

**Respiratory Protection:** If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (In countries where exposure limits have not been established), an approved respirator must be worn. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or Manufacturer for specific information.

**Hygiene measures:** Observe good industrial hygiene practices.

**Environmental Controls:** No data available.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

**Physical State:** Solid

**Form:** powder

**Color:** White

**Odor:** Odorless

**Odor Threshold:** No data available.

**pH:** No data available.

**Boiling Point:** No data available.

**Flash Point:** not applicable, combustible solid

**Evaporation Rate:** No data available.

**Flammability (solid, gas):** No data available.



<b>Flammability Limit - Upper (%)--:</b>	No data available.
<b>Flammability Limit - Lower (%)--:</b>	No data available.
<b>Vapor pressure:</b>	Not determined.
<b>Vapor density (air=1):</b>	No data available.
<b>Specific Gravity:</b>	1,31 - 1,32
<b>Solubility(ies)</b>	
<b>Solubility in Water:</b>	Negligible
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Autoignition Temperature:</b>	No data available.
<b>Decomposition Temperature:</b>	304 °C (DSC) 123 J/g
<b>Dynamic Viscosity:</b>	No data available.
<b>Kinematic viscosity:</b>	Not determined.
<b>Explosive properties:</b>	No data available.
<b>Oxidizingproperties:</b>	No data available.
<b>Dust Explosion Class:</b>	St 2 - strong explosion

#### SECTION 10: Stability and reactivity

<b>10.1 Reactivity:</b>	None known.
<b>10.2 Chemical stability:</b>	Stable
<b>10.3 Possibility of hazardous reactions:</b>	Can decompose at elevated temperatures.
<b>10.4 Conditions to avoid:</b>	Excessive heat.
<b>10.5 Incompatible materials:</b>	Strong oxidizing agents.
<b>10.6 Hazardous decomposition products:</b>	Carbon Dioxide. Carbon Monoxide.

#### SECTION 11: Toxicological information

##### Information on likely routes of exposure

<b>Inhalation:</b>	None known.
<b>Ingestion:</b>	None known.
<b>Skin contact:</b>	Molten material will produce thermal burns.
<b>Eye contact:</b>	Molten material will produce thermal burns.

##### 11.1 Information on toxicological effects

###### Acute Toxicity

<b>Oral Product:</b>	No data available.
<b>Specified substance(s)</b> cellulose acetate	No data available.
<b>Dermal Product:</b>	No data available.
<b>Specified substance(s)</b>	



---

cellulose acetate	No data available.
<b>Inhalation</b>	
<b>Product:</b>	No data available.
<b>Specified substance(s)</b>	
cellulose acetate	No data available.
<b>Repeated dose toxicity</b>	
<b>Product:</b>	No data available.
cellulose acetate	No data available.
<b>Skin corrosion/irritation:</b>	
<b>Product:</b>	No data available.
<b>Specified substance(s)</b>	
cellulose acetate	No data available.
<b>Serious eye damage/eye irritation:</b>	
<b>Product:</b>	No data available.
<b>Specified substance(s)</b>	
cellulose acetate	No data available.
<b>Respiratory or skin sensitization:</b>	
<b>Product:</b>	No data available.
<b>Specified substance(s)</b>	
cellulose acetate	No data available.
<b>Mutagenicity</b>	
<b>In vitro</b>	
<b>Product:</b>	No data available.
<b>Specified substance(s)</b>	
cellulose acetate	No data available.
<b>In vivo</b>	
<b>Product:</b>	No data available.
<b>Specified substance(s)</b>	
cellulose acetate	No data available.
<b>Carcinogenicity</b>	
<b>Product:</b>	No data available.
<b>Specified substance(s)</b>	
cellulose acetate	No data available.
<b>Reproductive toxicity</b>	
<b>Product:</b>	No data available.
<b>Specified substance(s)</b>	
cellulose acetate	No data available.
<b>Specific target organ toxicity - single exposure</b>	
<b>Product:</b>	No data available.
<b>Specified substance(s)</b>	
cellulose acetate	No data available.



**Specific target organ toxicity - repeated exposure**

**Product:** No data available.  
cellulose acetate No data available.

**Aspiration hazard**

**Product:** No data available.

**Specified substance(s)**  
cellulose acetate No data available.

**Other adverse effects:** No data available.

**SECTION 12: Ecological information**

**12.1 Toxicity**

**Acute toxicity**

**Fish**

**Product:** No data available.

**Specified substance(s)**  
cellulose acetate No data available.

**Aquatic invertebrates**

**Product:** No data available.

**Specified substance(s)**  
cellulose acetate No data available.

**Chronic Toxicity**

**Fish**

**Product:** No data available.

**Specified substance(s)**  
cellulose acetate No data available.

**Aquatic Invertebrates**

**Product:** No data available.

**Specified substance(s)**  
cellulose acetate No data available.

**Toxicity to Aquatic Plants**

**Product:** No data available.

**Specified substance(s)**  
cellulose acetate No data available.

**12.2 Persistence anddegradability**

**Biodegradation**

**Product:** No data available.

**Specified substance(s)**  
cellulose acetate No data available.

**Biological Oxygen Demand:**

**Product** No data available.

**Specified substance(s)**  
cellulose acetate No data available.



**Chemical Oxygen Demand:**  
Product No data available.

**Specified substance(s)**  
cellulose acetate No data available.

**BOD/COD ratio**  
Product No data available.

**Specified substance(s)**  
cellulose acetate No data available.

**12.3 Bioaccumulative potential**  
Product: No data available.

**Specified substance(s)**  
cellulose acetate No data available.

**12.4 Mobility In soil:** No data available.

**Known or predicted distribution to environmental compartments**  
cellulose acetate No data available.

**12.5 Results of PBT and vPvB assessment:** No data available.

cellulose acetate No data available.

**12.6 Other adverse effects:** No data available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

**General Information:** No data available.

**Disposal methods:** Dispose of waste and residues in accordance with local authority requirements. Incinerate.

#### European Waste Codes

Comply with requirements of waste disposal legislation and any local authority requirements.

## SECTION 14: Transport information

*Important Note: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Consult your company's Hazardous Materials/Dangerous Goods expert for information specific to your situation.*

#### **ADR/RID**

Class not regulated

#### **IMDG - International Maritime Dangerous Goods Code**

Class not regulated

#### **IATA**

Class not regulated

## SECTION 15: Regulatory information



**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**

**TSCA (US Toxic Substances Control Act):** This product is listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

**DSL (Canadian Domestic Substances List) and CEPA (Canadian Environmental Protection Act):** This product is listed on the DSL. Any impurities present in this product are exempt from listing.

**AICS / NICNAS (Australian Inventory of Chemical Substances and National Industrial Chemicals Notification and Assessment Scheme):** This product is listed on AICS or otherwise complies with NICNAS.

**MITI (Japanese Handbook of Existing and New Chemical Substances):** This product is listed in the Handbook or has been approved in Japan by new substance notification.

**ECL (Korean Toxic Substances Control Act):** This product is listed on the Korean inventory or otherwise complies with the Korean Toxic Substances Control Act.

**Inventory of Existing Chemical Substances in China:** All components of this product are listed on the Inventory of Existing Chemical Substances in China (IECSC).

**15.2 Chemical safety assessment:** None.

**SECTION 16: Other information**

**Revision Information:** Not relevant.

**Key literature references and sources for data:** No data available.

**Wording of the R-phrases and H-statements in section 2 and 3:** NOT CLASS = Not classified

**Training Information:** No data available.

**Issue date:**  
**SDS No.:**  
**Disclaimer:**

This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.





Version 1.0

Revision Date 10/27/2015

This SDS adheres to the standards and regulatory requirements of the United States and may not meet the regulatory requirements in other countries.

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : ABS Resin  
Product Use : Polymer  
  
Restrictions on use : For manufacturing and research use only  
  
Manufacturer/Supplier : Intercontinental Export Import, Inc  
8815 Center Park Drive  
Suite 400  
Columbia MD, 21045  
  
Product Information : +1-410-674-5600

**SECTION 2. HAZARDS IDENTIFICATION**

**Product hazard category**  
Combustible dust

**Label content**  
Pictogram : not required

**Signal word** : Warning

**Hazardous warnings** : May form combustible dust concentrations in air.

**Hazardous prevention Measures** : not required

**Other hazards**



Version 1.0

Revision Date 10/27/2015

If small particles are generated during further processing, handling or by other means, may form combustible dust concentrations in air.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

This product does not contain any components that require disclosure according to OSHA Hazard Communication Standard 2012.

### SECTION 4. FIRST AID MEASURES

- |  |   |
|--|---|
| General advice                                     | : No applicable data available.   |
| Inhalation   | : Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.  |
| Skin contact                                       | : The material is not likely to be hazardous by skin contact, but cleaning the skin after use is advisable. Cool skin rapidly with cold water after contact with molten material. Do not peel polymer from the skin. Obtain medical treatment for thermal burn. |
| Eye contact  | : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.  |
| Ingestion  | : No specific intervention is indicated. Consult a physician if necessary.  |
| Most important symptoms/effects, acute and delayed | : No applicable data available.   |
| Protection of first-aiders                         | : No applicable data available.   |
| Notes to physician                                 | : No applicable data available.   |

### SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Water, Foam, Dry chemical, Carbon dioxide (CO2)



Version 1.0

Revision Date 10/27/2015

- Unsuitable extinguishing media : No applicable data available.
- Specific hazards : Combustible . Large molten masses may ignite spontaneously in air. Water quenching is good practice. Minimize the generation and accumulation of dust. Failure or malfunction of temperature control systems on processing equipment, such as extruders, may create explosion hazards. (see also section 10) Carbon monoxide, Carbon dioxide.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus and protective suit.
- Further information : Evacuate personnel and keep upwind of fire.

#### SECTION 6. ACCIDENTAL RELEASE MEASURES

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

- Safeguards (Personnel) : Spilled material is a slipping hazard.
- Environmental precautions : Do not discharge to streams, ponds, lakes or sewers.
- Spill Cleanup : Spills of fine material should be cleaned using gentle sweeping or vacuuming. Cleaning methods (e.g. compressed air) which can generate potentially combustible dust clouds should not be used. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Use only non-sparking tools.
- Accidental Release Measures : No applicable data available.

#### SECTION 7. HANDLING AND STORAGE

- Handling (Personnel) : Open container only in well-ventilated area. Wash hands thoroughly after handling. Provide appropriate exhaust ventilation at dryers, machinery and at places where dust or volatiles can be generated. Do not breathe dust. Minimize the generation and accumulation of dust. Pneumatic conveying and other mechanical handling operations can generate combustible dust. Routine housekeeping should be instituted to ensure that dusts do not



Version 1.0

Revision Date 10/27/201

- accumulate on surfaces.
- Handling (Physical Aspects) : No applicable data available.  
Dust explosion class : No applicable data available.  
Storage : Store in a cool, dry place. Keep container closed to prevent contamination.  
Keep in an area equipped with sprinklers.
- Storage period : No applicable data available.
- Storage temperature : No applicable data available.

#### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Engineering controls : General mechanical ventilation is normally adequate but use local exhaust where necessary to maintain exposures below acceptable limits. Use local exhaust to completely remove vapors and fumes liberated during hot processing from the work area.
- Personal protective equipment  
Respiratory protection : Additives in this product do not present a respiration hazard unless the product is ground to a powder of respirable size and the dust is inhaled. All dusts are potentially injurious to the respiratory tract if respirable particles are generated and inhaled. A respiratory protection program that meets country requirements must be followed whenever workplace conditions warrant respirator use. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer. Consult the OSHA respiratory protection information located at 29CFR 1910.134. Use a positive pressure air supplied respirator if exposure levels are not known or there are any other circumstances where air purifying respirators may not provide adequate protection.
- Hand protection : Additional protection: Wear leather or cotton gloves when grinding, sawing, routing, drilling or sanding. When handling hot material, use heat resistant gloves.
- Eye protection : Wear safety glasses with side shields. Wear tightly fitting chemical splash goggles and face shield when possibility exists for eye and face contact due to spattering or splashing of molten material. A full-face mask respirator provides protection from eye irritation.
- Skin and body protection : If there is a potential for contact with hot/molten material wear heat resistant clothing and footwear.



Version 1.0

Revision Date 10/27/2015

**Exposure Guidelines**  
**Exposure Limit Values**

This product does not contain any exposure limits that require disclosure according to OSHA Hazard Communication Standard 2012.

**Non-Constituent(s)**

Dust (inhalable and respirable fraction)			
Permissible exposure limit:	(OSHA)	5 mg/m3	8 hr. TWA Respirable fraction.
Permissible exposure limit:	(OSHA)	15 mg/m3	8 hr. TWA Total dust.
TLV	(ACGIH)	3 mg/m3	TWA Respirable particles.
TLV	(ACGIH)	10 mg/m3	TWA Inhalable particles.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	
Physical state	: solid
Form	: pellets
Color	: natural
<b>Odor</b>	: none
<b>Odor threshold</b>	: No applicable data available.
<b>pH</b>	: Not applicable
<b>Melting point/freezing point</b>	: Glass Transition 105°C
<b>Boiling point/boiling range</b>	: Boiling point/boiling range Not applicable





Version 1.0

Revision Date 10/27/2015

Flash point	: Not applicable
Evaporation rate	: Not applicable
Flammability (solid, gas)	: May form combustible dust concentrations in air.
Upper explosion limit	: Not applicable
Lower explosion limit	: Not applicable
Vapor pressure	: Not applicable
Vapor density	: Not applicable
Specific gravity (Relative density)	: > 1
Water solubility	: insoluble
Solubility(ies)	: No applicable data available.
Partition coefficient: n-octanol/water	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: >340 °C

Thermal decomposition of the resin accelerates above temperature listed.

Decomposition can occur below the recommended processing temperature limit.

Decomposition is a function of both processing temperature and time at that temperature.

Viscosity, kinematic : Not applicable

Viscosity, dynamic : Not applicable

#### SECTION 10. STABILITY AND REACTIVITY

Reactivity : Stable at normal ambient temperature and pressure.



Version 1.0

Revision Date 10/27/2015

- Chemical stability** : Stable at normal ambient temperature and pressure.
- Possibility of hazardous reactions** : Polymerization will not occur.
- Conditions to avoid** : Temperature > 340 °C (> 644 °F)  
Avoid prolonged exposure at or above the recommended processing temperatures.  
Decomposes on heating.  
At temperatures above the "conditions to avoid" temperature, thermal decomposition of the resin accelerates.  
Decomposition can occur below the recommended processing temperature limit.  
Decomposition is a function of both processing temperature and time at that temperature.
- Incompatible materials** : Strong acids Strong bases, Strong oxidizing agents
- Hazardous decomposition products** : Hazardous thermal decomposition products may include:  
Aldehydes, Nitrogen oxides (NOx), traces of hydrogen cyanide, Ammonia ,  
Carbon monoxide , Carbon dioxide, Cyclopentanone

## SECTION 11. TOXICOLOGICAL INFORMATION

### ABS Resin

- Further information** : No data is available on the product itself. For additional toxicity data, write to the company address or call the non-emergency number shown in Section 1.

#### Carcinogenicity

The carcinogenicity classifications for this product and/or its ingredients have been determined according to HazCom 2012, Appendix A.6. The classifications may differ from those listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or those found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition).

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

## SECTION 12. ECOLOGICAL INFORMATION



Version 1.0

Revision Date 10/27/2015

**Additional ecological information** : No data is available on the product itself. Toxicity is expected to be low based on insolubility in water.

### SECTION 13. DISPOSAL CONSIDERATIONS

**Waste disposal methods - Product** : Preferred options for disposal are recycling or incineration with energy recovery. The high fuel value of this product makes incineration very desirable for material that cannot be recycled. Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations.

**Contaminated packaging** : No applicable data available.

### SECTION 14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

### SECTION 15. REGULATORY INFORMATION

**TSCA** : In compliance with TSCA Inventory requirements for commercial purposes.

**SARA 313 Regulated Chemical(s)** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**PA Right to Know Regulated Chemical(s)** : Substances on the Pennsylvania Hazardous Substances List present at a concentration of 1% or more (0.01% for Special Hazardous Substances): None known.

**NJ Right to Know Regulated Chemical(s)** : Substances on the New Jersey Workplace Hazardous Substance List present at a concentration of 1% or more (0.1% for substances identified as carcinogens, mutagens or teratogens): None known.

**California Prop. 65** : Chemicals known to the State of California to cause cancer, birth defects or







Version 1.0

Revision Date 10/27/2015

any other harm: none known

#### SECTION 16. OTHER INFORMATION

**Restrictions for use** : Do not use Niche materials in medical applications involving implantation in the human body or contact with internal body fluids or tissues unless the material has been provided from Niche under a written contract that is consistent with Niche policy regarding medical applications and expressly acknowledges the contemplated use. For further information, please contact your Niche representative.

Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

Revision Date : 10/27/2015

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Significant change from previous version is denoted with a double bar.

