SAFETY DATA SHEET

SECTION 1- MANUFACTURER'S IDENTIFICATION

Product Name: PERMASTIC URETHANE WTB PART A
Product Code: A4-1854W
Manufacturer’s Name: Induron Protective Coatings, LLC
Address: 3333 Richard Arrington Blvd. N.
Birmingham, Alabama 35234
Emergency Phone: 1-800-424-9300
Information Phone: (205)324-9584

Section 2 - Composition / Information on Ingredients

GHS Ratings:

- Flammable liquid: 3
  - Flash point: >= 23°C and <= 60°C (140°F)
- Oral Toxicity: Acute Tox. 3
  - Oral: >50<=300mg/kg
- Skin corrosive: 3
  - Reversible adverse effects in dermal tissue, Draize score: >= 1.5 < 2.3
- Eye corrosive: 2A
  - Eye irritant: Subcategory 2A, Reversible in 21 days
- Skin sensitizer: 1
- Mutagen: 1B
  - Known to produce heritable mutations in human germ cells Subcategory 1B, Positive results: In vivo heritable germ cell tests in mammals, Human germ cell tests, In vivo somatic mutagenicity tests, combined with some evidence of germ cell mutagenicity
- Carcinogen: 1B
  - Presumed Human Carcinogen, Based on demonstrated animal carcinogenicity
- Reproductive toxin: 1B
  - Presumed, Based on experimental animals

GHS Hazards

- H226 Flammable liquid and vapour.
- H301 Toxic if swallowed
- H316 Causes mild skin irritation
- H317 May cause an allergic skin reaction
- H319 Causes serious eye irritation
- H340 May cause genetic defects
- H350 May cause cancer
- H360 May damage fertility or the unborn child

GHS Precautions

- P201 Obtain special instructions before use
- P202 Do not handle until all safety precautions have been read and understood
- P210 Keep away from heat/sparks/open flames/hot surfaces - No smoking.
- P233 Keep container tightly closed.
- P240 Ground/bond container and receiving equipment.
- P241 Use explosion-proof electrical equipment.
- P242 Use only non-sparking tools.
- P243 Take precautionary measures against static discharge.
- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- P264 Wash equipment and contaminated skin thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P281 Use personal protective equipment as required
- P321 Wash contaminated skin, follow Physician’s instructions for treatment.
- P330 Rinse mouth
P363 Wash contaminated clothing before reuse
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P302+P352 IF ON SKIN: Wash with soap and water
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.
   Rinse skin with water/shower
P305+P351+P338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact
   lenses if present and easy to do – continue rinsing
P308+P313 IF exposed or concerned: Get medical advice/attention
P332+P313 If skin irritation occurs: Get medical advice/attention
P333+P313 If skin irritation or a rash occurs: Get medical advice/attention
P337+P313 Get medical advice/attention
P370+P378 In case of fire: Use CO2, water spray, foam, or dry chemical to extinguish.
P405 Store locked up
P403+P235 Store in a well ventilated place. Keep cool
P501 Dispose of contents/container in accordance to appropriate regulations and laws.

Signal Word: Danger

Preexisting skin, eye, and respiratory disorders may be aggravated by exposure to this product. Impaired kidney
and liver functions from preexisting disorders may be aggravated by exposure to this product.

Kidney damage may be evidenced by changes in urine output, urine appearance, or edema (swelling from fluid
retention). Liver damage may be evidenced by loss of appetite, jaundice and sometimes pain in the upper abdomen
on the right side.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS number</th>
<th>Weight Concentration %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium Dioxide Colorant</td>
<td>13463-67-7</td>
<td>30.00% - 40.00%</td>
</tr>
<tr>
<td>PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE</td>
<td>108-65-6</td>
<td>10.00% - 20.00%</td>
</tr>
<tr>
<td>Calcium Carbonate (limestone)</td>
<td>1317-65-3</td>
<td>5.00% - 10.00%</td>
</tr>
<tr>
<td>Kaolin</td>
<td>1332-58-7</td>
<td>1.00% - 5.00%</td>
</tr>
<tr>
<td>Benzene, 1-chloro-4-(trifluoromethyl)-</td>
<td>98-56-6</td>
<td>1.00% - 5.00%</td>
</tr>
<tr>
<td>DIPROPYLENE GLYCOL n-BUTYL ETHER</td>
<td>29911-28-2</td>
<td>1.00% - 5.00%</td>
</tr>
<tr>
<td>2-ETHYL BENZENE</td>
<td>100-41-4</td>
<td>0.10% - 1.00%</td>
</tr>
<tr>
<td>Naptha(Pet), light arom.</td>
<td>64742-95-6</td>
<td>0.10% - 1.00%</td>
</tr>
</tbody>
</table>

Section 4 - First Aid Measures

INHALATION - If product solids are inhaled either as dust or in the form of a spray mist, remove the person from
exposure immediately. If breathing is difficult, irregular, or has stopped, start resuscitation; call a physician. Administer oxygen if a qualified operator is available.

EYE CONTACT - In case of eye contact, flush the eyes with water for fifteen (15) minutes. If contact lenses are worn, quickly remove them, then flush the eyes with water. Have a physician examine the eyes.

SKIN CONTACT - In case of skin contact, remove contaminated clothing. Flush the skin with large amounts of water, then wash the skin with soap and water.
INGESTION - If material is ingested, seek immediate medical attention. If vomiting occurs spontaneously, keep the head below the hips to prevent aspiration of liquid into the lungs.

Notes to Physician: No data found

Section 5 - Fire Fighting Measures

<table>
<thead>
<tr>
<th>Flash Point:</th>
<th>26 C (79 F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEL:</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Flammable Product

EXTINGUISHING MEDIA: Use carbon dioxide (CO2), "alcohol" foam, dry chemical systems, water fog, water spray.

UNUSUAL FIRE OR EXPLOSION HAZARDS: Under normal storage conditions this product is stable.

HAZARDOUS COMBUSTION PRODUCTS: Oxides of carbon and hydrocarbons

FIRE FIGHTING: If evacuation of personnel is necessary, evacuate to an upwind area. Decontaminate personnel and equipment with a water wash-down after fire and smoke exposure. Use water spray to cool unopened containers.

FIRE FIGHTING: If evacuation of personnel is necessary, evacuate to an upwind area. Decontaminate personnel and equipment with a water wash-down after fire and smoke exposure.

Section 6 - Accidental Release Measures

SPILL AND LEAK PROCEDURES: Spill supervisor - Ensure cleanup personnel wear all appropriate Personal Protective Equipment (PPE), including respiratory protection. Remove all ignition sources. Keep nonessential personnel away from the contaminated area.

SMALL SPILLS: Ventilate the contaminated area. Using nonsparking tools, mix the appropriate sorbent into the spilled material. Use an absorbent like sawdust for aqueous, waterborne, and solvent-borne coatings.

Collect the saturated sorbent and transfer it into a covered container. Steel containers are acceptable for all wastes except wastes which contain acid. Use suitable plastic containers for acid-bearing wastes. Wet absorbent materials with water to prevent spontaneous combustion with alkyd type formulas.

Dispose of the waste in compliance with all Federal, state, regional, and local regulations.

LARGE SPILLS: Prevent this material from entering sewers and watercourses by diking or impounding the spilled material. Advise authorities if the product has entered or may enter, sewers, watercourses, or extensive land areas.

Ventilate the contaminated area. Using nonsparking tools, mix the appropriate sorbent into the spilled material. Use an absorbent like sawdust for aqueous, waterborne, and solvent-borne coatings.

Collect the saturated sorbent and transfer it into a covered container. Steel containers are acceptable for all wastes except wastes which contain acid. Use suitable plastic containers for acid-bearing wastes. Wet absorbent with water for alkyd type spills.

Section 7 - Handling and Storage

HANDLING PRECAUTIONS: Wear all appropriate Personal Protective Equipment (PPE). Wear respiratory protection or ensure adequate ventilation at all times as vapors can accumulate in confined or poorly ventilated areas. Use the product in a manner which minimizes splashes and/or the creation of dust. Keep containers closed when not in use. Do not handle or store material near heat, sparks, open flames, or other sources of ignition. Store at room temperatures, i.e., 40 to 95 F (4 to 35 C).

STORAGE: Prevent from freezing. Do not store above 120 F (49 C).

Store only in original containers.

REGULATORY REQUIREMENTS: No data found.

Section 8 - Exposure Controls / Personal Protection

<table>
<thead>
<tr>
<th>Chemical Name / CAS No.</th>
<th>OSHA Exposure Limits</th>
<th>ACGIH Exposure Limits</th>
<th>Other Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium Dioxide Colorant 13463-67-7</td>
<td>15 mg/m³ TWA (total dust)</td>
<td>10 mg/m³ TWA</td>
<td>Not Established</td>
</tr>
<tr>
<td>Substance</td>
<td>Appearance</td>
<td>Odor</td>
<td>Odor threshold</td>
</tr>
<tr>
<td>-----------</td>
<td>------------</td>
<td>------</td>
<td>----------------</td>
</tr>
<tr>
<td>PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE 108-65-6</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
<tr>
<td>Calcium Carbonate (limestone) 1317-65-3</td>
<td>15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)</td>
<td>Not Established</td>
<td>2 mg/m3 TWA (particulate matter containing no asbestos and &lt;1% crystalline silica, respirable fraction)</td>
</tr>
<tr>
<td>Kaolin 1332-58-7</td>
<td>15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)</td>
<td>2 mg/m3 TWA (particulate matter containing no asbestos and &lt;1% crystalline silica, respirable fraction)</td>
<td>NIOSH: 10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable dust)</td>
</tr>
<tr>
<td>Benzene, 1-chloro-4-(trifluoromethyl)-98-56-6</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
<tr>
<td>DIPROPYLENE GLYCOL n-BUTYL ETHER 29911-28-2</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
<tr>
<td>2-ETHYL BENZENE 100-41-4</td>
<td>100 ppm TWA; 435 mg/m3 TWA</td>
<td>20 ppm TWA</td>
<td>NIOSH: 100 ppm TWA; 435 mg/m3 TWA; 125 ppm STEL; 545 mg/m3 STEL</td>
</tr>
<tr>
<td>Naptha(Pet), light arom. 64742-95-6</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
</tbody>
</table>

**ENGINEERING:** Ensure processing (curing) ovens are properly vented to prevent the introduction of processing fumes into the workplace. Use explosion-proof equipment and good manufacturing practice.

**VENTILATION:** Use only with adequate ventilation, i.e., ventilation in compliance with occupational exposure limits.

**ADMINISTRATIVE CONTROLS:** No data found.

**PROTECTIVE EQUIPMENT:** Wear splash goggles. If extra protection is required, wear a face shield over the splash goggles. Face shields are effective only if worn in addition to splash goggles.

Wear a chemical-resistant, butyl-rubber apron and other protective clothing, as deemed appropriate, to avoid skin contact with material.

Wear chemical-resistant gloves (butyl rubber or neoprene). Protective gloves should be inspected frequently and discarded when they exhibit cuts, tears, pinholes, or signs of excessive wear.

**CONTAMINATED EQUIPMENT:** Dispose of the waste in compliance with all Federal, state, regional, and local regulations.

**Section 9 - Physical and Chemical Properties**

This mixture typically exhibits the following properties under normal circumstances:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>3.7 mmHg</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>4.8</td>
</tr>
<tr>
<td>DENSITY</td>
<td>13.50</td>
</tr>
<tr>
<td>Freezing point</td>
<td>N/A</td>
</tr>
<tr>
<td>Boiling range</td>
<td>141°C</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>N/A</td>
</tr>
<tr>
<td>Explosive Limits</td>
<td>N/A</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>N/A</td>
</tr>
<tr>
<td>Odor</td>
<td>N/A</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>N/A</td>
</tr>
<tr>
<td>pH</td>
<td>N/A</td>
</tr>
<tr>
<td>Melting point</td>
<td>N/A</td>
</tr>
<tr>
<td>Solubility</td>
<td>N/A</td>
</tr>
<tr>
<td>Flash point</td>
<td>79 F, 26 C</td>
</tr>
<tr>
<td>Flammability</td>
<td>N/A</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>N/A</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Section 10 - Stability and Reactivity

Stability: This product is stable under normal storage conditions.

STABLE

Avoid strong oxidizing agents.

This mixture is likely to exhibit the following combustion products: Carbon oxides.

Hazardous polymerization will not occur.

Section 11 - Toxicological Information

Mixture Toxicity

Oral Toxicity LD50: 150mg/kg
Inhalation Toxicity LC50: 973mg/L

Routes of Entry:

Exposure to this material may affect the following organs:

Eyes Central Nervous System Skin Respiratory System

Effects of Overexposure

Carcinogenicity: The following chemicals comprise 0.1% or more of this mixture and are listed and/or classified as carcinogens or potential carcinogens by NTP, IARC, OSHA (mandatory listing), or ACGIH (optional listing).

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Description</th>
<th>% Weight</th>
<th>Carcinogen Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>100-41-4</td>
<td>2-ETHYL BENZENE</td>
<td>.1 to 1.0%</td>
<td>2-ETHYL BENZENE: IARC: Possible human carcinogen OSHA: listed</td>
</tr>
<tr>
<td>64742-95-6</td>
<td>Naptha(Pet), light arom.</td>
<td>.1 to 1.0%</td>
<td>Naptha(Pet), light arom.: EU REACH: Present (P)</td>
</tr>
<tr>
<td>13463-67-7</td>
<td>Titanium Dioxide Colorant</td>
<td>30 to 40%</td>
<td>Titanium Dioxide Colorant: NIOSH: potential occupational carcinogen IARC: Possible human carcinogen OSHA: listed</td>
</tr>
</tbody>
</table>

Section 12 - Ecological Information

Ecological information: No data found.

Component Ecotoxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>Ecotoxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROPYLENE GLYCOL</td>
<td>96 Hr LC50 Pimephales promelas: 161 mg/L [static]</td>
</tr>
<tr>
<td>MONOMETHYL ETHER ACETATE</td>
<td>48 Hr EC50 Daphnia magna: &gt;500 mg/L</td>
</tr>
<tr>
<td>Benzene, 1-chloro-4-(trifluoromethyl)</td>
<td>48 Hr EC50 Daphnia magna: 3.68 mg/L</td>
</tr>
<tr>
<td>DIPROPYLENE GLYCOL n-BUTYL ETHER</td>
<td>96 Hr LC50 Poecilia reticulata: 841 mg/L [static]</td>
</tr>
</tbody>
</table>
2-ETHYL BENZENE 96 Hr LC50 Oncorhynchus mykiss: 11.0 - 18.0 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 4.2 mg/L [semi-static]; 96 Hr LC50 Pimephales promelas: 7.55 - 11 mg/L [flow-through]; 96 Hr LC50 Lepomis macrochirus: 32 mg/L [static]; 96 Hr LC50 Pimephales promelas: 9.1 - 15.6 mg/L [static]; 96 Hr LC50 Poecilia reticulata: 9.6 mg/L [static]
48 Hr EC50 Daphnia magna: 1.8 - 2.4 mg/L
72 Hr EC50 Pseudokirchneriella subcapitata: 4.6 mg/L; 96 Hr EC50 Pseudokirchneriella subcapitata: >438 mg/L; 72 Hr EC50 Pseudokirchneriella subcapitata: 2.6 - 11.3 mg/L [static]; 96 Hr EC50 Pseudokirchneriella subcapitata: 1.7 - 7.6 mg/L [static]

Naptha(Pet), light arom. 96 Hr LC50 Oncorhynchus mykiss: 9.22 mg/L
48 Hr EC50 Daphnia magna: 6.14 mg/L

Section 13 - Disposal Considerations

As the US EPA, state, regional, and other regulatory agencies may have jurisdiction over the disposal of your facility's hazardous waste, it is incumbent upon you, the hazardous waste generator, to learn of and satisfy all the requirements which affect you. Dispose of the hazardous waste at a properly licensed and permitted disposal site or facility. Ensure conformity to all applicable hazardous waste disposal regulations.

The US EPA Hazardous Waste Numbers which follow are applicable to this unadulterated product if the product enters the "waste stream." Refer to Title 40 of the Code of Federal Regulations, Part 261 (40 CFR 261). This part of the Code identifies solid wastes which are subject to regulation under various sections of the Code and which are subject to the notification requirements of Section 3010 of the Resource Conservation and Recovery Act (RCRA).

Section 14 - Transport Information

<table>
<thead>
<tr>
<th>Agency</th>
<th>Proper Shipping Name</th>
<th>UN Number</th>
<th>Packing Group</th>
<th>Hazard Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT</td>
<td>PAINT</td>
<td>1263</td>
<td>III</td>
<td>3</td>
</tr>
<tr>
<td>IATA</td>
<td>PAINT</td>
<td>1263</td>
<td>III</td>
<td>3</td>
</tr>
</tbody>
</table>

15: Regulatory Information

State of California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): WARNING! This product contains the following chemicals which are listed by the State of California as carcinogenic or a reproductive toxin:

- 100-41-4 2-ETHYL BENZENE 0.1 to 1.0 %
- 13463-67-7 Titanium Dioxide Colorant 30 to 40 %

HAZARDOUS AIR POLLUTANTS

- 100-41-4 2-ETHYL BENZENE

MASSACHUSETTS RIGHT TO KNOW

- 100-41-4 2-ETHYL BENZENE 0.1 to 1.0 %
- 1332-58-7 Kaolin 1 to 5 %
- 1317-65-3 Calcium Carbonate (limestone) 5 to 10 %
- 13463-67-7 Titanium Dioxide Colorant 30 to 40 %

NEW JERSEY RIGHT TO KNOW

- 100-41-4 2-ETHYL BENZENE 0.1 to 1.0 %
- 1332-58-7 Kaolin 1 to 5 %
- 1317-65-3 Calcium Carbonate (limestone) 5 to 10 %
- 13463-67-7 Titanium Dioxide Colorant 30 to 40 %

PENNSYLVANIA RIGHT TO KNOW
100-41-4  2-ETHYL BENZENE  0.1 to 1.0 %
1332-58-7  Kaolin  1 to 5 %
1317-65-3  Calcium Carbonate (limestone)  5 to 10 %
13463-67-7  Titanium Dioxide Colorant  30 to 40 %

29911-28-2  DIPROPYLENE GLYCOL n-BUTYL ETHER

CHEMICAL LIST FOR SARA 313
100-41-4  2-ETHYL BENZENE

Country  Regulation  All Components Listed

EU Risk Phrases

Safety Phrase

- None

16: OTHER INFORMATION

Hazardous Material Information System (HMIS)

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>FLAMMABILITY</th>
<th>PHYSICAL HAZARD</th>
<th>PERSONAL PROTECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>* 2</td>
<td>3</td>
<td>0</td>
<td>G</td>
</tr>
</tbody>
</table>

HMIS & NFPA Hazard Rating
Legend
* = Chronic Health Hazard
0 = INSIGNIFICANT
1 = SLIGHT
2 = MODERATE
3 = HIGH

National Fire Protection Association (NFPA)

Flammability  Health  Instability  Special

Reviewer Revision

Date Prepared: 8/2/2016
SAFETY DATA SHEET

SECTION 1 - MANUFACTURER'S IDENTIFICATION

Product Name: PERMASTIC URETHANE CTB PART A
Product Code: A4-1857C
Manufacturer's Name: Induron Protective Coatings, LLC
Address: 3333 Richard Arrington Blvd. N.
Birmingham, Alabama 35234
Emergency Phone: 1-800-424-9300
Information Phone: (205)324-9584

Section 2 - Composition / Information on Ingredients

GHS Ratings:

- **Flammable liquid**: 3  
  Flash point >= 23°C and <= 60°C (140°F)
- **Oral Toxicity**: Acute Tox. 3  
  Oral>50<=300mg/kg
- **Skin corrosive**: 3  
  Reversible adverse effects in dermal tissue, Draize score: >= 1.5 < 2.3
- **Eye corrosive**: 2A  
  Eye irritant: Subcategory 2A, Reversible in 21 days
- **Skin sensitizer**: 1  
  Skin sensitizer
- **Mutagen**: 1B  
  Known to produce heritable mutations in human germ cells, Subcategory 1B, Positive results: In vivo heritable germ cell tests in mammals, Human germ cell tests, In vivo somatic mutagenicity tests, combined with some evidence of germ cell mutagenicity
- **Carcinogen**: 1B  
  Presumed Human Carcinogen, Based on demonstrated animal carcinogenicity
- **Reproductive toxin**: 1B  
  Presumed, Based on experimental animals

GHS Hazards

- H226  Flammable liquid and vapour.
- H301  Toxic if swallowed
- H316  Causes mild skin irritation
- H317  May cause an allergic skin reaction
- H319  Causes serious eye irritation
- H340  May cause genetic defects
- H350  May cause cancer
- H360  May damage fertility or the unborn child

GHS Precautions

- P201  Obtain special instructions before use
- P202  Do not handle until all safety precautions have been read and understood
- P210  Keep away from heat/sparks/open flames/hot surfaces - No smoking.
- P233  Keep container tightly closed.
- P240  Ground/bond container and receiving equipment.
- P241  Use explosion-proof electrical equipment.
- P242  Use only non-sparking tools.
- P243  Take precautionary measures against static discharge.
- P261  Avoid breathing dust/fume/gas/mist/vapours/spray.
- P264  Wash equipment and contaminated skin thoroughly after handling.
- P270  Do not eat, drink or smoke when using this product
- P272  Contaminated work clothing should not be allowed out of the workplace.
- P280  Wear protective gloves/protective clothing/eye protection/face protection.
- P281  Use personal protective equipment as required
- P321  Wash contaminated skin, follow Physician's instructions for treatment.
- P330  Rinse mouth
P363 Wash contaminated clothing before reuse
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P302+P352 IF ON SKIN: Wash with soap and water
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.
  Rinse skin with water/shower
P305+P351+P338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact
  lenses if present and easy to do – continue rinsing
P308+P313 IF exposed or concerned: Get medical advice/attention
P332+P313 If skin irritation occurs: Get medical advice/attention
P333+P313 If skin irritation or a rash occurs: Get medical advice/attention
P337+P313 Get medical advice/attention
P370+P378 In case of fire: Use CO2, water spray, foam, or dry chemical to extinguish.
P405 Store locked up
P403+P235 Store in a well ventilated place. Keep cool
P501 Dispose of contents/container in accordance to appropriate regulations and laws.

Signal Word: Danger

Preexisting skin, eye, and respiratory disorders may be aggravated by exposure to this product. Impaired kidney
and liver functions from preexisting disorders may be aggravated by exposure to this product.

Kidney damage may be evidenced by changes in urine output, urine appearance, or edema (swelling from fluid
retention). Liver damage may be evidenced by loss of appetite, jaundice and sometimes pain in the upper abdomen
on the right side.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS number</th>
<th>Weight Concentration %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Carbonate (limestone)</td>
<td>1317-65-3</td>
<td>10.00% - 20.00%</td>
</tr>
<tr>
<td>PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE</td>
<td>108-65-6</td>
<td>10.00% - 20.00%</td>
</tr>
<tr>
<td>Benzene, 1-chloro-4-(trifluoromethyl)-</td>
<td>98-56-6</td>
<td>5.00% - 10.00%</td>
</tr>
<tr>
<td>Kaolin</td>
<td>1332-58-7</td>
<td>5.00% - 10.00%</td>
</tr>
<tr>
<td>DIPROPYLENE GLYCOL n-BUTYL ETHER</td>
<td>29911-28-2</td>
<td>1.00% - 5.00%</td>
</tr>
<tr>
<td>2-ETHYL BENZENE</td>
<td>100-41-4</td>
<td>0.10% - 1.00%</td>
</tr>
<tr>
<td>Naptha(Pet), light arom.</td>
<td>64742-95-6</td>
<td>0.10% - 1.00%</td>
</tr>
</tbody>
</table>

Section 4 - First Aid Measures

INHALATION - If product solids are inhaled either as dust or in the form of a spray mist, remove the person from
exposure immediately. If breathing is difficult, irregular, or has stopped, start resuscitation; call a physician.
Administer oxygen if a qualified operator is available.

EYE CONTACT - In case of eye contact, flush the eyes with water for fifteen (15) minutes. If contact lenses are
worn, quickly remove them, then flush the eyes with water. Have a physician examine the eyes.

SKIN CONTACT - In case of skin contact, remove contaminated clothing. Flush the skin with large amounts of
water, then wash the skin with soap and water.

INGESTION - If material is ingested, seek immediate medical attention. If vomiting occurs spontaneously, keep the
head below the hips to prevent aspiration of liquid into the lungs.
Section 5 - Fire Fighting Measures

Flammable Product

Flash Point: 27 C (81 F)
LEL: 1.00 UEL: 20.00

EXTINGUISHING MEDIA: Use carbon dioxide (CO2), "alcohol" foam, dry chemical systems, water fog, water spray.

UNUSUAL FIRE OR EXPLOSION HAZARDS: Under normal storage conditions this product is stable.

HAZARDOUS COMBUSTION PRODUCTS: Oxides of carbon and hydrocarbons

FIRE FIGHTING: If evacuation of personnel is necessary, evacuate to an upwind area. Decontaminate personnel and equipment with a water wash-down after fire and smoke exposure. Use water spray to cool unopened containers.

Section 6 - Accidental Release Measures

SPILL AND LEAK PROCEDURES: Spill supervisor - Ensure cleanup personnel wear all appropriate Personal Protective Equipment (PPE), including respiratory protection. Remove all ignition sources. Keep nonessential personnel away from the contaminated area.

SMALL SPILLS: Ventilate the contaminated area. Using nonsparking tools, mix the appropriate sorbent into the spilled material. Use an absorbent like sawdust for aqueous, waterborne, and solvent-borne coatings.

Collect the saturated sorbent and transfer it into a covered container. Steel containers are acceptable for all wastes except wastes which contain acid. Use suitable plastic containers for acid-bearing wastes. Wet absorbent materials with water to prevent spontaneous combustion with alkyd type formulas.

Dispose of the waste in compliance with all Federal, state, regional, and local regulations.

LARGE SPILLS: Prevent this material from entering sewers and watercourses by diking or impounding the spilled material. Advise authorities if the product has entered or may enter, sewers, watercourses, or extensive land areas.

Ventilate the contaminated area. Using nonsparking tools, mix the appropriate sorbent into the spilled material. Use an absorbent like sawdust for aqueous, waterborne, and solvent-borne coatings.

Collect the saturated sorbent and transfer it into a covered container. Steel containers are acceptable for all wastes except wastes which contain acid. Use suitable plastic containers for acid-bearing wastes. Wet absorbent with water for alkyd type spills.

Section 7 - Handling and Storage

HANDLING PRECAUTIONS: Wear all appropriate Personal Protective Equipment (PPE). Wear respiratory protection or ensure adequate ventilation at all times as vapors can accumulate in confined or poorly ventilated areas. Use the product in a manner which minimizes splashes and/or the creation of dust. Keep containers closed when not in use. Do not handle or store material near heat, sparks, open flames, or other sources of ignition. Store at room temperatures, i.e., 40 to 95 F (4 to 35 C).

STORAGE: Prevent from freezing. Do not store above 120 F (49 C).

Store only in original containers.

REGULATORY REQUIREMENTS: No data found.

Section 8 - Exposure Controls / Personal Protection

<table>
<thead>
<tr>
<th>Chemical Name / CAS No.</th>
<th>OSHA Exposure Limits</th>
<th>ACGIH Exposure Limits</th>
<th>Other Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Carbonate (limestone) 1317-65-3</td>
<td>15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)</td>
<td>Not Established</td>
<td>NIOSH: 10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable dust)</td>
</tr>
</tbody>
</table>
ENGINEERING: Ensure processing (curing) ovens are properly vented to prevent the introduction of processing fumes into the workplace. Use explosion-proof equipment and good manufacturing practice.

VENTILATION: Use only with adequate ventilation, i.e., ventilation in compliance with occupational exposure limits.

ADMINISTRATIVE CONTROLS: No data found.

PROTECTIVE EQUIPMENT: Wear splash goggles. If extra protection is required, wear a face shield over the splash goggles. Face shields are effective only if worn in addition to splash goggles.

Wear a chemical-resistant, butyl-rubber apron and other protective clothing, as deemed appropriate, to avoid skin contact with material.

Wear chemical-resistant gloves (butyl rubber or neoprene). Protective gloves should be inspected frequently and discarded when they exhibit cuts, tears, pinholes, or signs of excessive wear.

CONTAMINATED EQUIPMENT: Dispose of the waste in compliance with all Federal, state, regional, and local regulations.

Section 9 - Physical and Chemical Properties

This mixture typically exhibits the following properties under normal circumstances:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>4.2 mmHg</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>4.8</td>
</tr>
<tr>
<td>DENSITY</td>
<td>11.41</td>
</tr>
<tr>
<td>Freezing point</td>
<td>N/A</td>
</tr>
<tr>
<td>Boiling range</td>
<td>141°C</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>N/A</td>
</tr>
<tr>
<td>Explosive Limits</td>
<td>N/A</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>N/A</td>
</tr>
<tr>
<td>Viscosity</td>
<td>N/A</td>
</tr>
<tr>
<td>Odor</td>
<td>N/A</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>N/A</td>
</tr>
<tr>
<td>pH</td>
<td>N/A</td>
</tr>
<tr>
<td>Melting point</td>
<td>N/A</td>
</tr>
<tr>
<td>Solubility</td>
<td>N/A</td>
</tr>
<tr>
<td>Flash point</td>
<td>81 F, 27 C</td>
</tr>
<tr>
<td>Flammability</td>
<td>N/A</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>N/A</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>N/A</td>
</tr>
<tr>
<td>Coating VOC Lb/Gal</td>
<td>3.17</td>
</tr>
</tbody>
</table>

SDS for: A4-1857C  Page 4 of 7
Printed: 8/2/2016 at 8:28:11AM
Section 10 - Stability and Reactivity

Stability: This product is stable under normal storage conditions.
   STABLE

Avoid strong oxidizing agents.

This mixture is likely to exhibit the following combustion products: Carbon oxides.

Hazardous polymerization will not occur.

Section 11 - Toxicological Information

Mixture Toxicity

Oral Toxicity LD50: 95mg/kg
Inhalation Toxicity LC50: 376mg/L

Routes of Entry:

Exposure to this material may affect the following organs:

<table>
<thead>
<tr>
<th>Eyes</th>
<th>Central Nervous System</th>
<th>Skin</th>
<th>Respiratory System</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Effects of Overexposure

Carcinogenicity: The following chemicals comprise 0.1% or more of this mixture and are listed and/or classified as carcinogens or potential carcinogens by NTP, IARC, OSHA (mandatory listing), or ACGIH (optional listing).

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Description</th>
<th>% Weight</th>
<th>Carcinogen Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>100-41-4</td>
<td>2-ETHYL BENZENE</td>
<td>.1 to 1.0%</td>
<td>2-ETHYL BENZENE: IARC: Possible human carcinogen</td>
</tr>
<tr>
<td>64742-95-6</td>
<td>Naptha(Pet), light arom.</td>
<td>.1 to 1.0%</td>
<td>Naptha(Pet), light arom.: EU REACH: Present (P)</td>
</tr>
</tbody>
</table>

Section 12 - Ecological Information

Ecological information: No data found.

Component Ecotoxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>Ecotoxicity Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROPYLENE GLYCOL</td>
<td>96 Hr LC50 Pimephales promelas: 161 mg/L [static]</td>
</tr>
<tr>
<td>MONOMETHYL ETHER ACETATE</td>
<td>48 Hr EC50 Daphnia magna: &gt;500 mg/L</td>
</tr>
<tr>
<td>Benzene, 1-chloro-4- (trifluoromethyl)-</td>
<td>48 Hr EC50 Daphnia magna: 3.68 mg/L</td>
</tr>
<tr>
<td>DIPROPYLENE GLYCOL n-BUTYL ETHER</td>
<td>96 Hr LC50 Poecilia reticulata: 841 mg/L [static]</td>
</tr>
<tr>
<td>2-ETHYL BENZENE</td>
<td>96 Hr LC50 Oncorhynchus mykiss: 11.0 - 18.0 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 4.2 mg/L [semi-static]; 96 Hr LC50 Pimephales promelas: 7.55 - 11 mg/L [flow-through]; 96 Hr LC50 Lepomis macrochirus: 32 mg/L [static]; 96 Hr LC50 Pimephales promelas: 9.1 - 15.6 mg/L [static]; 96 Hr LC50 Poecilia reticulata: 9.6 mg/L [static]; 48 Hr EC50 Daphnia magna: 1.8 - 2.4 mg/L; 72 Hr EC50 Pseudokirchneriella subcapitata: 4.6 mg/L; 96 Hr EC50 Pseudokirchneriella subcapitata: &gt;438 mg/L; 72 Hr EC50 Pseudokirchneriella subcapitata: 2.6 - 11.3 mg/L [static]; 96 Hr EC50 Pseudokirchneriella subcapitata: 1.7 - 7.6 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 9.22 mg/L; 48 Hr EC50 Daphnia magna: 6.14 mg/L</td>
</tr>
</tbody>
</table>

Naptha(Pet), light arom. 96 Hr LC50 Oncorhynchus mykiss: 9.22 mg/L
48 Hr EC50 Daphnia magna: 6.14 mg/L
Section 13 - Disposal Considerations

As the US EPA, state, regional, and other regulatory agencies may have jurisdiction over the disposal of your facility's hazardous waste, it is incumbent upon you, the hazardous waste generator, to learn of and satisfy all the requirements which affect you. Dispose of the hazardous waste at a properly licensed and permitted disposal site or facility. Ensure conformity to all applicable hazardous waste disposal regulations.

The US EPA Hazardous Waste Numbers which follow are applicable to this unadulterated product if the product enters the "waste stream." Refer to Title 40 of the Code of Federal Regulations, Part 261 (40 CFR 261). This part of the Code identifies solid wastes which are subject to regulation under various sections of the Code and which are subject to the notification requirements of Section 3010 of the Resource Conservation and Recovery Act (RCRA).

Section 14 - Transport Information

<table>
<thead>
<tr>
<th>Agency</th>
<th>Proper Shipping Name</th>
<th>UN Number</th>
<th>Packing Group</th>
<th>Hazard Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT</td>
<td>PAINT</td>
<td>1263</td>
<td>III</td>
<td>3</td>
</tr>
<tr>
<td>IATA</td>
<td>PAINT</td>
<td>1263</td>
<td>III</td>
<td>3</td>
</tr>
</tbody>
</table>

15: Regulatory Information

State of California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): WARNING! This product contains the following chemicals which are listed by the State of California as carcinogenic or a reproductive toxin:

100-41-4 2-ETHYL BENZENE 0.1 to 1.0 %

HAZARDOUS AIR POLLUTANTS

100-41-4 2-ETHYL BENZENE

MASSACHUSETTS RIGHT TO KNOW

100-41-4 2-ETHYL BENZENE 0.1 to 1.0 %
1332-58-7 Kaolin 5 to 10 %
1317-65-3 Calcium Carbonate (limestone) 10 to 20 %

NEW JERSEY RIGHT TO KNOW

100-41-4 2-ETHYL BENZENE 0.1 to 1.0 %
1332-58-7 Kaolin 5 to 10 %
1317-65-3 Calcium Carbonate (limestone) 10 to 20 %

PENNSYLVANIA RIGHT TO KNOW

100-41-4 2-ETHYL BENZENE 0.1 to 1.0 %
1332-58-7 Kaolin 5 to 10 %
1317-65-3 Calcium Carbonate (limestone) 10 to 20 %

29911-28-2 DIPROPYLENE GLYCOL n-BUTYL ETHER

CHEMICAL LIST FOR SARA 313

100-41-4 2-ETHYL BENZENE

Country  Regulation  All Components Listed

EU Risk Phrases

Safety Phrase
Hazardous Material Information System (HMIS)

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEALTH</td>
<td>* 2</td>
</tr>
<tr>
<td>FLAMMABILITY</td>
<td>3</td>
</tr>
<tr>
<td>PHYSICAL HAZARD</td>
<td>0</td>
</tr>
<tr>
<td>PERSONAL PROTECTION</td>
<td>G</td>
</tr>
</tbody>
</table>

National Fire Protection Association (NFPA)

HMIS & NFPA Hazard Rating

Legend

* = Chronic Health Hazard
0 = INSIGNIFICANT
1 = SLIGHT
2 = MODERATE
3 = HIGH

Date Prepared: 8/2/2016

Reviewer Revision
SAFETY DATA SHEET

SECTION 1- MANUFACTURER'S IDENTIFICATION

Product Name: PERMASTIC ACTIVATOR    Product Code: Q4-1216
Trade Name: DESMODUR 3390
Manufacturer's Name: Induron Protective Coatings, LLC
Address: 3333 Richard Arrington Blvd. N.
Birmingham, Alabama 35234
Emergency Phone: 1-800-424-9300
Information Phone: (205)324-9584

Section 2 - Composition / Information on Ingredients

GHS Ratings:

Flammable liquid 3 Flash point >= 23°C and <= 60°C (140°F)
Inhalation Toxicity Acute Tox. 4 Gases>2500+<=5000ppm, Vapors>10+<=20mg/l,
Dusts&mists>1+<=5mg/l
Skin sensitizer 1 Skin sensitizer
Organ toxin single exposure 3 Transient target organ effects- Narcotic effects- Respiratory tract irritation

GHS Hazards

H226 Flammable liquid and vapour.
H317 May cause an allergic skin reaction
H332 Harmful if inhaled
H335 May cause respiratory irritation

GHS Precautions

P210 Keep away from heat/sparks/open flames/hot surfaces - No smoking.
P233 Keep container tightly closed.
P241 Use explosion-proof electrical equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P271 Use only outdoors or in a well-ventilated area
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P281 Use personal protective equipment as required
P285 In case of inadequate ventilation wear respiratory protection
P312 Call a POISON CENTER or doctor/physician if you feel unwell
P363 Wash contaminated clothing before reuse
P302+P352 IF ON SKIN: Wash with soap and water
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.
Rinse skin with water/shower
P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing
P308+P313 IF exposed or concerned: Get medical advice/attention
P333+P313 If skin irritation or a rash occurs: Get medical advice/attention
P370+P378 In case of fire: Use CO2, water spray, foam, or dry chemical to extinguish.
P405 Store locked up
P403+P235 Store in a well ventilated place. Keep cool
P501 Dispose of contents/container in accordance to appropriate regulations and laws.

Signal Word: Warning
Preexisting skin, eye, and respiratory disorders may be aggravated by exposure to this product. Impaired kidney and liver functions from preexisting disorders may be aggravated by exposure to this product.

Kidney damage may be evidenced by changes in urine output, urine appearance, or edema (swelling from fluid retention). Liver damage may be evidenced by loss of appetite, jaundice and sometimes pain in the upper abdomen on the right side.

### Section 3 - Hazards Identification

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS number</th>
<th>Weight Concentration %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homopolymer of Hexamethylene Diisocyanate.</td>
<td>28182-81-2</td>
<td>80.00% - 90.00%</td>
</tr>
<tr>
<td>n-BUTYL ACETATE</td>
<td>123-86-4</td>
<td>1.00% - 5.00%</td>
</tr>
<tr>
<td>Naptha(Pet), light arom.</td>
<td>64742-95-6</td>
<td>1.00% - 5.00%</td>
</tr>
<tr>
<td>Mixed Xylenes</td>
<td>1330-20-7</td>
<td>0.10% - 1.00%</td>
</tr>
<tr>
<td>Benzene,1,3,5-trimethyl</td>
<td>108-67-8</td>
<td>0.10% - 1.00%</td>
</tr>
<tr>
<td>HEXAMETHYLENE DIISOCYANATE</td>
<td>822-06-0</td>
<td>0.10% - 1.00%</td>
</tr>
<tr>
<td>* 1,2,4-TRIMETHYL BENZENE</td>
<td>95-63-6</td>
<td>0.10% - 1.00%</td>
</tr>
</tbody>
</table>

### Section 4 - First Aid Measures

**INHALATION** - If product solids are inhaled either as dust or in the form of a spray mist, remove the person from exposure immediately. If breathing is difficult, irregular, or has stopped, start resuscitation; call a physician. Administer oxygen if a qualified operator is available.

**EYE CONTACT** - In case of eye contact, flush the eyes with water for fifteen (15) minutes. If contact lenses are worn, quickly remove them, then flush the eyes with water. Have a physician examine the eyes.

**SKIN CONTACT** - In case of skin contact, remove contaminated clothing. Flush the skin with large amounts of water, then wash the skin with soap and water.

**INGESTION** - If material is ingested, seek immediate medical attention. If vomiting occurs spontaneously, keep the head below the hips to prevent aspiration of liquid into the lungs.

Notes to Physician: No data found

### Section 5 - Fire Fighting Measures

Flash Point: 47 C (117 F)  
LEL: 1.00  
UEL: 8.00  
Flammable Product  

**EXTINGUISHING MEDIA:** Use carbon dioxide (CO2), "alcohol" foam, dry chemical systems. Direct water application may cause violent frothing.  

**UNUSUAL FIRE OR EXPLOSION HAZARDS:** Moisture can cause significant pressure increases in the packaging, leading to pressure caused leaks or even explosions.  

**HAZARDOUS COMBUSTION PRODUCTS:** Oxides of carbon, hydrocarbons, hydrogen cyanide, oxides of sulfur and or zinc.

**FIRE FIGHTING:** If evacuation of personnel is necessary, evacuate to an upwind area. Decontaminate personnel and equipment with a water wash-down after fire and smoke exposure. Use water spray to cool opened containors.  

**FIRE FIGHTING:** If evacuation of personnel is necessary, evacuate to an upwind area. Decontaminate personnel...
and equipment with a water wash-down after fire and smoke exposure.

### Section 6 - Accidental Release Measures

**SPILL AND LEAK PROCEDURES:** Spill supervisor - Ensure cleanup personnel wear all appropriate Personal Protective Equipment (PPE), including respiratory protection. Remove all ignition sources. Keep nonessential personnel away from the contaminated area.

**SMALL SPILLS:** Ventilate the contaminated area. Using nonsparking tools, mix the appropriate sorbent into the spilled material. Use an absorbent like sawdust for aqueous, waterborne, and solvent-borne coatings.

Collect the saturated sorbent and transfer it into a covered container. Steel containers are acceptable for all wastes except wastes which contain acid. Use suitable plastic containers for acid-bearing wastes. Wet absorbent materials with water to prevent spontaneous combustion with alkyd type formulas.

Dispose of the waste in compliance with all Federal, state, regional, and local regulations.

**LARGE SPILLS:** Prevent this material from entering sewers and watercourses by diking or impounding the spilled material. Advise authorities if the product has entered or may enter, sewers, watercourses, or extensive land areas.

Ventilate the contaminated area. Using nonsparking tools, mix the appropriate sorbent into the spilled material. Use an absorbent like sawdust for aqueous, waterborne, and solvent-borne coatings.

Collect the saturated sorbent and transfer it into a covered container. Steel containers are acceptable for all wastes except wastes which contain acid. Use suitable plastic containers for acid-bearing wastes. Wet absorbent with water for alkyd type spills.

### Section 7 - Handling and Storage

**HANDLING PRECAUTIONS:** Wear all appropriate Personal Protective Equipment (PPE). Wear respiratory protection or ensure adequate ventilation at all times as vapors can accumulate in confined or poorly ventilated areas. Use the product in a manner which minimizes splashes and/or the creation of dust. Keep containers closed when not in use. Do not handle or store material near heat, sparks, open flames, or other sources of ignition. Store at room temperatures, i.e., 40 to 95 F (4 to 35 C).

**STORAGE:** Prevent from freezing. Do not store above 120 F (49 C). Keep in dry areas.

Store only in original containers.

**REGULATORY REQUIREMENTS:** No data found.

### Section 8 - Exposure Controls / Personal Protection

<table>
<thead>
<tr>
<th>Chemical Name / CAS No.</th>
<th>OSHA Exposure Limits</th>
<th>ACGIH Exposure Limits</th>
<th>Other Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homopolymer of Hexamethylene Disocyanate. 28182-81-2</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
<tr>
<td>n-BUTYL ACETATE 123-86-4</td>
<td>150 ppm TWA; 710 mg/m3 TWA</td>
<td>200 ppm STEL 150 ppm TWA</td>
<td>NIOSH: 150 ppm TWA; 710 mg/m3 TWA 200 ppm STEL; 950 mg/m3 STEL</td>
</tr>
<tr>
<td>Naptha(Pet), light arom. 64742-95-6</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
<tr>
<td>Mixed Xylenes 1330-20-7</td>
<td>100 ppm TWA; 435 mg/m3 TWA</td>
<td>150 ppm STEL 100 ppm TWA</td>
<td>Not Established</td>
</tr>
<tr>
<td>Benzene,1,3,5-trimethyl 108-67-8</td>
<td>Not Established</td>
<td>Not Established</td>
<td>NIOSH: 25 ppm TWA; 125 mg/m3 TWA</td>
</tr>
</tbody>
</table>
ENGINEERING: Ensure processing (curing) ovens are properly vented to prevent the introduction of processing fumes into the workplace. Use explosion-proof equipment and good manufacturing practice.

VENTILATION: Use only with adequate ventilation, i.e., ventilation in compliance with occupational exposure limits.

ADMINISTRATIVE CONTROLS: No data found.

PROTECTIVE EQUIPMENT: Wear splash goggles. If extra protection is required, wear a face shield over the splash goggles. Face shields are effective only if worn in addition to splash goggles.

Wear a chemical-resistant, butyl-rubber apron and other protective clothing, as deemed appropriate, to avoid skin contact with material.

Wear chemical-resistant gloves (butyl rubber or neoprene). Protective gloves should be inspected frequently and discarded when they exhibit cuts, tears, pinholes, or signs of excessive wear.

Wear chemical vapor mask or air supplied mask during exposure of vapors.

CONTAMINATED EQUIPMENT: Dispose of the waste in compliance with all Federal, state, regional, and local regulations.

Section 9 - Physical and Chemical Properties

This mixture typically exhibits the following properties under normal circumstances:

<table>
<thead>
<tr>
<th>Decomposition temperature: N/A</th>
<th>Viscosity: N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coating VOC Lb/Gal: 0.49</td>
<td>Appearance: N/A</td>
</tr>
<tr>
<td>Odor: N/A</td>
<td>Vapor Pressure: 6.1 mmHg</td>
</tr>
<tr>
<td>Odor threshold: N/A</td>
<td>Vapor Density: 4.3</td>
</tr>
<tr>
<td>pH: N/A</td>
<td>DENSITY: 9.84</td>
</tr>
<tr>
<td>Melting point: N/A</td>
<td>Freezing point: N/A</td>
</tr>
<tr>
<td>Solubility: N/A</td>
<td>Boiling range: 126°C</td>
</tr>
<tr>
<td>Flash point: 117 F, 47 C</td>
<td>Evaporation rate: N/A</td>
</tr>
<tr>
<td>Flammability: N/A</td>
<td>Explosive Limits: N/A</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water): N/A</td>
<td>Autoignition temperature: N/A</td>
</tr>
</tbody>
</table>

Section 10 - Stability and Reactivity

Stability: The product is stable under normal storage conditions

STABLE

The product is unstable in the presence of water, and active hydrogen containing compounds such as amines, alcohols, and acids.

This mixture is likely to exhibit the following combustion products: Carbon oxides, hydrogen cyanide, aliphatic compounds, and oxides of sulfur and zinc.
Section 11 - Toxicological Information

Mixture Toxicity

Oral Toxicity LD50: 84mg/kg
Inhalation Toxicity LC50: 5mg/L

Routes of Entry: Skin, Eyes, Breathing

Exposure to this material may affect the following organs: Skin, lungs, eyes, internal organs.

 Blood  Eyes  Central Nervous System  Skin  Respiratory System

Effects of Overexposure

Carcinogenicity: The following chemicals comprise 0.1% or more of this mixture and are listed and/or classified as carcinogens or potential carcinogens by NTP, IARC, OSHA (mandatory listing), or ACGIH (optional listing).

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Description</th>
<th>% Weight</th>
<th>Carcinogen Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>64742-95-6</td>
<td>Naptha(Pet), light arom.</td>
<td>1 to 5%</td>
<td>Naptha(Pet), light arom.: EU REACH: Present (P)</td>
</tr>
</tbody>
</table>

Section 12 - Ecological Information

Component Ecotoxicity

n-BUTYL ACETATE

96 Hr LC50 Lepomis macrochirus: 100 mg/L [static]; 96 Hr LC50 Pimephales promelas: 17 - 19 mg/L [flow-through]
72 Hr EC50 Desmodesmus subspicatus: 674.7 mg/L

Naptha(Pet), light arom.
96 Hr LC50 Oncorhynchus mykiss: 9.22 mg/L
48 Hr EC50 Daphnia magna: 6.14 mg/L

Mixed Xylenes

96 Hr LC50 Pimephales promelas: 13.4 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 2.661 - 4.093 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 13.5 - 17.3 mg/L; 96 Hr LC50 Lepomis macrochirus: 13.1 - 16.5 mg/L [flow-through]; 96 Hr LC50 Lepomis macrochirus: 19 mg/L; 96 Hr LC50 Lepomis macrochirus: 7.711 - 9.591 mg/L [static]; 96 Hr LC50 Pimephales promelas: 23.53 - 29.97 mg/L [static]; 96 Hr LC50 Cyprinus carpio: 780 mg/L [semi-static]; 96 Hr LC50 Cyprinus carpio: >780 mg/L; 96 Hr LC50 Poecilia reticulata: 30.26 - 40.75 mg/L [static]
48 Hr EC50 water flea: 3.82 mg/L; 48 Hr LC50 Gammarus lacustris: 0.6 mg/L

Benzene, 1,3,5-trimethyl

96 Hr LC50 Pimephales promelas: 3.48 mg/L

HEXAMETHYLENE DIISOCYANATE

96 Hr LC50 Brachydanio rerio: 26.1 mg/L [static]

* 1,2,4-TRIMETHYL BENZENE

96 Hr LC50 Pimephales promelas: 7.19 - 8.28 mg/L [flow-through]
48 Hr EC50 Daphnia magna: 6.14 mg/L

Section 13 - Disposal Considerations

As the US EPA, state, regional, and other regulatory agencies may have jurisdiction over the disposal of your facility's hazardous waste, it is incumbent upon you, the hazardous waste generator, to learn of and satisfy all the requirements which affect you. Dispose of the hazardous waste at a properly licensed and permitted disposal site or facility. Ensure conformity to all applicable hazardous waste disposal regulations.

The US EPA Hazardous Waste Numbers which follow are applicable to this unadulterated product if the product enters the "waste stream." Refer to Title 40 of the Code of Federal Regulations, Part 261 (40 CFR 261). This part of the Code identifies solid wastes which are subject to regulation under various sections of the Code and which are subject to the notification requirements of Section 3010 of the Resource Conservation and Recovery Act (RCRA).
Section 14 - Transport Information

<table>
<thead>
<tr>
<th>Agency</th>
<th>Proper Shipping Name</th>
<th>UN Number</th>
<th>Packing Group</th>
<th>Hazard Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT</td>
<td>PAINT</td>
<td>1263</td>
<td>III</td>
<td>3</td>
</tr>
<tr>
<td>IATA</td>
<td>PAINT</td>
<td>1263</td>
<td>III</td>
<td>3</td>
</tr>
</tbody>
</table>

15: Regulatory Information

HAZARDOUS AIR POLLUTANTS
1330-20-7  Mixed Xylenes
822-06-0  HEXAMETHYLENE DIISOCYANATE

MASSACHUSETTS RIGHT TO KNOW
95-63-6  * 1,2,4-TRIMETHYL BENZENE  0.1 to 1.0 %
108-67-8  Benzene, 1,3,5-trimethyl  0.1 to 1.0 %
1330-20-7  Mixed Xylenes  0.1 to 1.0 %
822-06-0  HEXAMETHYLENE DIISOCYANATE  0.1 to 1.0 %
123-86-4  n-BUTYL ACETATE  1 to 5 %

NEW JERSEY RIGHT TO KNOW
95-63-6  * 1,2,4-TRIMETHYL BENZENE  0.1 to 1.0 %
822-06-0  HEXAMETHYLENE DIISOCYANATE  0.1 to 1.0 %
1330-20-7  Mixed Xylenes  0.1 to 1.0 %
123-86-4  n-BUTYL ACETATE  1 to 5 %

PENNSYLVANIA RIGHT TO KNOW
1330-20-7  Mixed Xylenes  0.1 to 1.0 %
95-63-6  * 1,2,4-TRIMETHYL BENZENE  0.1 to 1.0 %
123-86-4  n-BUTYL ACETATE  1 to 5 %

CHEMICAL LIST FOR SARA 311
1330-20-7  Mixed Xylenes

1330-20-7  Mixed Xylenes
28182-81-2  Homopolymer of Hexamethylene Diisocyanate.

CHEMICAL LIST FOR SARA 313
1330-20-7  Mixed Xylenes
95-63-6  * 1,2,4-TRIMETHYL BENZENE

<table>
<thead>
<tr>
<th>Country</th>
<th>Regulation</th>
<th>All Components Listed</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU Risk Phrases</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Safety Phrase

- None

16: OTHER INFORMATION
Hazardous Material Information System (HMIS)

HMIS & NFPA Hazard Rating Legend
* = Chronic Health Hazard
0 = INSIGNIFICANT
1 = SLIGHT
2 = MODERATE
3 = HIGH

National Fire Protection Association (NFPA)

Date Prepared: 7/29/2016