1. IDENTIFICATION

Product identifier
Product Code                F113-00WHA
Product Name                HBTNEMETUFCOAT TNEMEC WHITE

Other means of identification
Common Name                 SERIES 113, PART A

Recommended use of the chemical and restrictions on use
Recommended Use             industrial paint.
Uses advised against        Consumer use, For professional use only. Not for residential use.

Details of the supplier of the safety data sheet
Manufacturer Address        Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372
Manufacturer Phone Number   816-474-3400
Distributor                 Tnemec Company, Inc. 86 Boul, des Entreprises, Ste. 203 Boisbriand, Quebec Canada J7G 2T3
Distributor Phone Number    800-535-5053 (Infotrac)

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin corrosion/irritation</td>
<td>Category 2</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 2</td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>Category 1B</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Category 1A</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Category 1A</td>
</tr>
<tr>
<td>Specific target organ toxicity (single exposure)</td>
<td>Category 3</td>
</tr>
<tr>
<td>Specific target organ toxicity (repeated exposure)</td>
<td>Category 1</td>
</tr>
</tbody>
</table>

Label elements

EMERGENCY OVERVIEW

Danger

Hazard statements
Causes skin irritation
Causes serious eye irritation
May cause an allergic skin reaction
May cause genetic defects
May cause cancer
May cause respiratory irritation. May cause drowsiness or dizziness
Causes damage to organs through prolonged or repeated exposure
Precautionary Statements

Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling
Contaminated work clothing should not be allowed out of the workplace
Wear protective gloves
Use only outdoors or in a well-ventilated area
Do not breathe dust/fume/gas/mist/vapors/spray
Do not eat, drink or smoke when using this product

Response
IF exposed or concerned: Get medical advice/attention
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
IF ON SKIN: Wash with plenty of soap and water
Take off contaminated clothing and wash before reuse
If skin irritation or rash occurs: Get medical advice/attention
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Storage
Store locked up
Store in a well-ventilated place. Keep container tightly closed
Keep away from children

Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
If product is in liquid or paste form, physical or health hazards listed related to dust are not considered significant. However, product may contain substances that could be potential hazards if caused to become airborne due to grinding, sanding or other abrasive processes.

Other information
May be harmful if swallowed
Harmful to aquatic life with long lasting effects
Cancer hazard. Contains crystalline silica which can cause cancer. (Risk of cancer depends on duration and level of exposure).
Respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring) of the lungs
SEE SAFETY DATA SHEET

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITANIUM DIOXIDE (TOTAL DUST)</td>
<td>13463-67-7</td>
<td>10 - 30%</td>
</tr>
<tr>
<td>CRYSTALLINE SILICA (QUARTZ)</td>
<td>14808-60-7</td>
<td>1 - 10%</td>
</tr>
<tr>
<td>ETHYLENE GLYCOL MONOPROPYL ETHER (SKIN)</td>
<td>2807-30-9</td>
<td>1 - 10%</td>
</tr>
</tbody>
</table>

Acute Toxicity
33.46125 % of the mixture consists of ingredient(s) of unknown toxicity.
**4. FIRST AID MEASURES**

**Description of first aid measures**

**General advice**
If symptoms persist, call a physician.

**Eye contact**
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

**Skin contact**
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Call a physician immediately.

**Inhalation**
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

**Ingestion**
If swallowed, do not induce vomiting. Get medical attention immediately.

**Self-protection of the first aider**
Use personal protective equipment. Avoid contact with eyes, skin and clothing.

**Most important symptoms and effects, both acute and delayed**

**Notes to physician**
Treat symptomatically.

**5. FIRE-FIGHTING MEASURES**

**Suitable extinguishing media**
Carbon dioxide. Foam. Dry chemical.

**Unsuitable extinguishing media**
Do not use a solid water stream as it may scatter and spread fire.

**Specific hazards arising from the chemical**
Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.

**Hazardous combustion products**

**Protective equipment and precautions for firefighters**
Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. MAY CAUSE HEAT AND PRESSURE BUILD-UP IN CLOSED CONTAINERS. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

**6. ACCIDENTAL RELEASE MEASURES**

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

**Personal precautions**
Avoid contact with eyes, skin and clothing. Use personal protective equipment. Remove all sources of ignition.
Environmental Precautions

Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

Methods and material for containment and cleaning up

Methods for containment
Remove all sources of ignition. Spills may be collected with inert, absorbent material for proper disposal. Use non-sparking tools, protective gloves, goggles and clothing, adequate ventilation, avoid the breathing of vapors and use respiratory protective devices. Transfer absorbent material to suitable containers for proper disposal.

Methods for cleaning up
If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

7. HANDLING AND STORAGE

Precautions for safe handling
Handling
Avoid contact with eyes, skin and clothing. Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities
Storage
Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children.

Incompatible products
Acids. Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7</td>
<td>TWA: 10 mg/m³</td>
<td>TWA: 10 mg/m³</td>
<td>5000 mg/m³</td>
</tr>
<tr>
<td>CRYSTALLINE SILICA (QUARTZ) 14808-60-7</td>
<td>TWA: 0.025 mg/m³</td>
<td>TWA: 0.1 mg/m³</td>
<td>50 mg/m³</td>
</tr>
<tr>
<td>TRIETHYLAMINE 121-44-8</td>
<td>TWA: 1 ppm</td>
<td>TWA: 10 ppm</td>
<td>200 ppm</td>
</tr>
<tr>
<td></td>
<td>Skin STEL: 3 ppm</td>
<td>TWA: 10 ppm</td>
<td></td>
</tr>
<tr>
<td>XYLENE 1330-20-7</td>
<td>TWA: 100 ppm</td>
<td>TWA: 100 ppm</td>
<td>3000 mg/m³</td>
</tr>
<tr>
<td></td>
<td>STEL: 150 ppm</td>
<td>TWA: 435 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL: 150 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL: 655 mg/m³</td>
<td></td>
</tr>
<tr>
<td>AMORPHOUS SILICA 7631-86-9</td>
<td>-</td>
<td>TWA: 6 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3000 mg/m³</td>
</tr>
<tr>
<td>ALUMINUM HYDROXIDE 21645-51-2</td>
<td>TWA: 1 mg/m³</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>NATURAL DIATOMACEOUS EARTH - AMORPHOUS SILICA 61790-53-2</td>
<td>-</td>
<td>TWA: 6 mg/m³</td>
<td></td>
</tr>
<tr>
<td>ZIRCONIUM OXIDE 1314-23-4</td>
<td>TWA: 5 mg/m³</td>
<td>-</td>
<td>25 mg/m³</td>
</tr>
</tbody>
</table>
appropriate engineering controls

engineered measures

sufficient ventilation, in volume and pattern, should be provided through both local and general exhaust to keep the air contaminant concentration below current applicable osha permissible exposure limits (pel) and acgih's threshold limit values (tlv). appropriate ventilation should be employed to remove hazardous decomposition products formed during welding or flame cutting operations of surfaces coated with this product.

individual protection measures, such as personal protective equipment

eye/face protection

use chemical resistant splash type goggles. if splashes are likely to occur, wear face-shield.

skin and body protection

wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

respiratory protection

use only with adequate ventilation. do not breathe vapors, spray mist, or dust. ensure fresh air entry during application and drying. if you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist or dust levels are above applicable limits, wear an appropriate, properly fitted respirator (niosh/msha approved) during and after application. follow respirator manufacturer's directions for respirator use. respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring) of the lungs.

general hygiene considerations

handle in accordance with good industrial hygiene and safety practice. avoid breathing dust created by cutting, sanding, or grinding.

9. physical and chemical properties

information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>property</th>
<th>values</th>
<th>remarks</th>
<th>remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>physical state</td>
<td>liquid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>appearance</td>
<td>opaque</td>
<td>odor</td>
<td>slight</td>
</tr>
<tr>
<td>color</td>
<td>no information available</td>
<td>odor threshold</td>
<td>no information available</td>
</tr>
<tr>
<td>property</td>
<td>values</td>
<td>remarks</td>
<td></td>
</tr>
<tr>
<td>ph</td>
<td>no data available</td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td>melting point / freezing point</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>boiling point / boiling range</td>
<td>85 °c / 185.0 °f</td>
<td>pensky martens - closed cup</td>
<td></td>
</tr>
<tr>
<td>flash point</td>
<td>88 °c / 190.0 °f</td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td>evaporation rate</td>
<td></td>
<td>no information available</td>
<td></td>
</tr>
<tr>
<td>flammability (solid, gas)</td>
<td></td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td>flammability limit in air</td>
<td></td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td>upper flammability limit</td>
<td>n/a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>lower flammability limit</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>vapor pressure</td>
<td></td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td>vapor density</td>
<td></td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td>specific gravity</td>
<td>1.33017</td>
<td>g/cm3</td>
<td></td>
</tr>
<tr>
<td>water solubility</td>
<td></td>
<td>insoluble in cold water</td>
<td></td>
</tr>
<tr>
<td>solubility in other solvents</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>partition coefficient: n-octanol/water</td>
<td></td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td>autoignition temperature</td>
<td></td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td>decomposition temperature</td>
<td></td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td>kinematic viscosity</td>
<td></td>
<td>no data available</td>
<td></td>
</tr>
<tr>
<td>dynamic viscosity</td>
<td>950 centipoises</td>
<td>approx</td>
<td></td>
</tr>
<tr>
<td>other information</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>density</td>
<td>11.06900 lbs/gal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>volatile organic compounds (voc)</td>
<td>1.825 lbs/gal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>content</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>total volatiles weight percent</td>
<td>44.6710 %</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

page 5 / 10
Total volatiles volume percent 61.2699 %

10. STABILITY AND REACTIVITY

Reactivity
No data available

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
None under normal processing.

Conditions to avoid
Heat, flames and sparks.

Incompatible materials
Acids, Strong oxidizing agents

Hazardous decomposition products

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation
May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination. Respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring) of the lungs.

Eye contact
Causes serious eye irritation.

Skin contact
Irritating to skin. May cause sensitization by skin contact.

Ingestion
Harmful if swallowed.

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7</td>
<td>&gt; 10000 mg/kg ( Rat )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRYSTALLINE SILICA (QUARTZ) 14808-60-7</td>
<td>= 500 mg/kg ( Rat )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETHYLENE GLYCOL MONOPROPYL ETHER (SKIN) 2807-30-9</td>
<td>= 3089 mg/kg ( Rat )</td>
<td>= 870 mg/kg ( Rabbit ) = 960 µL/kg ( Rabbit )</td>
<td>= 1530 ppm ( Rat ) 7 h</td>
</tr>
<tr>
<td>TRIETHYLAMINE 121-44-8</td>
<td>= 460 mg/kg ( Rat )</td>
<td>= 570 µL/kg ( Rabbit ) = 415 mg/kg ( Rabbit )</td>
<td>= 1250 ppm ( Rat ) 4 h</td>
</tr>
<tr>
<td>XYLENE 1330-20-7</td>
<td>= 3500 mg/kg ( Rat )</td>
<td>&gt; 1700 mg/kg ( Rabbit ) &gt; 4350 mg/kg ( Rabbit )</td>
<td>= 29.08 mg/L ( Rat ) 4 h = 5000 ppm ( Rat ) 4 h</td>
</tr>
<tr>
<td>AMORPHOUS SILICA 7831-86-9</td>
<td>&gt; 5000 mg/kg ( Rat )</td>
<td>&gt; 2000 mg/kg ( Rabbit )</td>
<td></td>
</tr>
<tr>
<td>ALUMINUM HYDROXIDE 21646-51-2</td>
<td>&gt; 5000 mg/kg ( Rat )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRYSTALLINE SILICA 14808-60-7</td>
<td>= 500 mg/kg ( Rat )</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Information on toxicological effects

Symptoms
Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Skin disorders. Irritating to eyes and skin.

Delayed and immediate effects as well as chronic effects from short and long-term exposure
Chronic Toxicity
Cancer hazard. Contains crystalline silica which can cause cancer. (Risk of cancer depends on duration and level of exposure). Skin sensitizer. Substances known to be mutagenic to man.

Sensitization
May cause sensitization of susceptible persons.

Mutagenicity
May cause genetic defects.

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

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITANIUM DIOXIDE (TOTAL DUST)</td>
<td></td>
<td>Group 2B</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>13463-67-7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRYSSTALLINE SILICA (QUARTZ)</td>
<td>A2</td>
<td>Group 1</td>
<td>Known</td>
<td>X</td>
</tr>
<tr>
<td>14808-60-7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>XYLENE</td>
<td></td>
<td>Group 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1330-20-7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AMORPHOUS SILICA</td>
<td></td>
<td>Group 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7831-86-9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NATURAL DIATOMACEOUS EARTH - AMORPHOUS SILICA</td>
<td>A2</td>
<td>Group 1</td>
<td>Known</td>
<td>X</td>
</tr>
<tr>
<td>61790-53-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reproductive effects
No information available.

STOT - single exposure
Eyes, Skin, Central Nervous System (CNS)

STOT - repeated exposure
Causes damage to organs through prolonged or repeated exposure
blood, Central nervous system, Central Vascular System (CVS), Gastrointestinal tract, eyes, kidney, liver, lungs, respiratory system, skin.

Aspiration hazard
No information available.

Acute Toxicity
33.46125 % of the mixture consists of ingredient(s) of unknown toxicity.

12. ECOLOGICAL INFORMATION

Ecotoxicity
Harmful to aquatic life with long lasting effects

32.90201 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

<table>
<thead>
<tr>
<th>Component</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to daphnia</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRIETHYLMAMINE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>121-44-8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>XYLENE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1330-20-7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AMORPHOUS SILICA</td>
<td>440: 72 h</td>
<td>5000: 96 h</td>
<td>7600: 48 h</td>
</tr>
<tr>
<td>7631-86-9</td>
<td>Pseudokirchneriella subcapitata mg/L</td>
<td>Brachydanie reno mg/L</td>
<td>Ceriodaphnia dubia mg/L</td>
</tr>
<tr>
<td>NATURAL DIATOMACEOUS EARTH - AMORPHOUS SILICA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>61790-53-2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Persistence and degradability
No information available.
Bioaccumulation
No information available.

Mobility in Environmental Media

<table>
<thead>
<tr>
<th>Component</th>
<th>log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRIETHYLAMINE</td>
<td>1.45</td>
</tr>
<tr>
<td>121-44-8</td>
<td></td>
</tr>
<tr>
<td>XYLENE</td>
<td>2.77</td>
</tr>
<tr>
<td>1330-20-7</td>
<td></td>
</tr>
</tbody>
</table>

Other Adverse Effects
No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods
Disposal Methods
Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Contaminated packaging
Empty containers should be taken to an approved waste handling site for recycling or disposal.

<table>
<thead>
<tr>
<th>Component</th>
<th>RCRA</th>
<th>RCRA - Basis for Listing</th>
<th>RCRA - D Series Wastes</th>
<th>RCRA - U Series Wastes</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRIETHYLAMINE</td>
<td>U404</td>
<td>Included in waste streams: K156, K157</td>
<td></td>
<td>U404</td>
</tr>
<tr>
<td>121-44-8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>XYLENE</td>
<td></td>
<td>Included in waste stream: F039</td>
<td></td>
<td>U239</td>
</tr>
<tr>
<td>1330-20-7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>CAWAST</th>
</tr>
</thead>
<tbody>
<tr>
<td>XYLENE</td>
<td>Toxic</td>
</tr>
<tr>
<td>1330-20-7</td>
<td>Ignitable</td>
</tr>
<tr>
<td>NATURAL DIATOMACEOUS EARTH - AMORPHOUS SILICA</td>
<td>Toxic</td>
</tr>
<tr>
<td>61790-53-2</td>
<td></td>
</tr>
</tbody>
</table>

14. TRANSPORT INFORMATION

DOT
Proper Shipping Name
paint, water base freezable Not regulated

IATA
Proper Shipping Name
Not regulated

Additional information
Call TNEMEC Traffic Department - 816-474-3400 for additional information or other modes of Transportation.

15. REGULATORY INFORMATION

International Inventories
TSCA
Complies

DSL/NDSL
Does not comply

EINECS/ELINCS
Does not comply

ENCS
Does not comply

IECSC
Complies

KECL
Does not comply

PICCS
Does not comply

AICS
Does not comply

†TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

**Component**  
ETHYLENE GLYCOL MONOPROPYL ETHER (SKIN)  
TRIETHYLAMINE  
XYLENE  

**United States of America**

**SARA 313**

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

<table>
<thead>
<tr>
<th>Component</th>
<th>SARA 313 - Threshold Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYLENE GLYCOL MONOPROPYL ETHER (SKIN) - 2807-30-9</td>
<td>1.0</td>
</tr>
<tr>
<td>TRIETHYLAMINE - 121-44-8</td>
<td>1.0</td>
</tr>
<tr>
<td>XYLENE - 1330-20-7</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**SARA 311/312 Hazardous**

**Categorization**

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

<table>
<thead>
<tr>
<th>Component</th>
<th>CWA - Reportable Quantities</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
<th>CWA - Hazardous Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRIETHYLAMINE 121-44-8</td>
<td>5000 lb</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>XYLENE 1330-20-7</td>
<td>100 lb</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

**CERCLA**

<table>
<thead>
<tr>
<th>Component</th>
<th>Hazardous Substances RQs</th>
<th>CERCLA EHS RQs</th>
<th>RQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRIETHYLAMINE 121-44-8</td>
<td>5000 lb</td>
<td></td>
<td>RQ 5000 lb final RQ</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>RQ 2270 kg final RQ</td>
</tr>
<tr>
<td>XYLENE 1330-20-7</td>
<td>100 lb</td>
<td></td>
<td>RQ 100 lb final RQ</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>RQ 45.4 kg final RQ</td>
</tr>
</tbody>
</table>

**United States of America**

**California Prop. 65**

WARNING! This product contains a chemical known in the State of California to cause cancer

<table>
<thead>
<tr>
<th>Component</th>
<th>California Prop. 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITANIUM DIOXIDE (TOTAL DUST) - 13463-67-7</td>
<td>Carcinogen</td>
</tr>
<tr>
<td>CRYSSTALLINE SILICA (QUARTZ) - 14808-60-7</td>
<td>Carcinogen</td>
</tr>
<tr>
<td>CRYSSTALLINE SILICA - 14808-60-7</td>
<td>Carcinogen</td>
</tr>
</tbody>
</table>

**California SCAQMD Rule 443**

Contains Photochemically Reactive Solvent

**State Right-to-Know**

<table>
<thead>
<tr>
<th>Component</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Chemical</th>
<th>HSC</th>
<th>SDI</th>
<th>DIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITANIUM DIOXIDE (TOTAL DUST)</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>13463-67-7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRYSTALLINE SILICA (QUARTZ)</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>14808-60-7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETHYLENE GLYCOL MONOPROPYL ETHER (SKIN)</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2807-30-9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRIETHYLAMINE</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>121-44-8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>XYLENE</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>1330-20-7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AMORPHOUS SILICA</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>7631-86-9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NATURAL DIATOMACEOUS EARTH - AMORPHOUS SILICA</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>61790-53-2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZIRCONIUM OXIDE</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1314-23-4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRISTILLINE SILICA</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>14808-60-7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

16. OTHER INFORMATION

NFPA Health 2 Flammability 1 Instability 1 Physical hazard *
HMIS (Hazardous Material Information System)
Prepared By Tnemec Regulatory Dept: 816-474-3400
Revision Date 08-Jul-2015
Revision Summary 1 4 5 7 10 8 9 11 14 15
Disclaimer For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.
To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS
1. IDENTIFICATION

Product identifier
Product Code  B113-0113B
Product Name  113/114 TNEME-TUFOAT CONVERT

Other means of identification
Common Name  SERIES 113/114, PART B

Recommended use of the chemical and restrictions on use
Recommended Use  industrial paint.
Uses advised against  Consumer use, For professional use only. Not for residential use.

Details of the supplier of the safety data sheet
Manufacturer Address  Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372
Distributor  Tnemec Company, Inc. 86 Boul, des Entreprises, Ste. 203 Boisbriand, Quebec Canada J7G 2T3

Emergency telephone number
Company Phone Number  Tnemec Regulatory Dept: 816-474-3400
24 Hour Emergency Phone Number  800-535-5053 (Infotrac)

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - Dermal</td>
<td>Category 4</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Category 2</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 2A</td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>Category 1</td>
</tr>
<tr>
<td>Flammable Liquids</td>
<td>Category 3</td>
</tr>
</tbody>
</table>

Label elements

EMERGENCY OVERVIEW

WARNING

Hazard statements
Harmful in contact with skin
Causes skin irritation
Causes serious eye irritation
May cause an allergic skin reaction
Flammable liquid and vapor
Precautionary Statements

Prevention
Wear protective gloves/protective clothing/eye protection/face protection
Wash face, hands and any exposed skin thoroughly after handling
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing should not be allowed out of the workplace
Keep away from heat/sparks/open flames/hot surfaces. — No smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Use explosion-proof electrical/ventilating/lighting/mixing/equipment
Use only non-sparking tools
Take precautionary measures against static discharge

Response
Get medical advice/attention if you feel unwell
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
Call a POISON CENTER or doctor/physician if you feel unwell
If skin irritation or rash occurs: Get medical advice/attention
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
In case of fire: Use CO2, dry chemical, or foam for extinction

Storage
Store in a well-ventilated place. Keep cool
Keep away from children

Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
If product is in liquid or paste form, physical or health hazards listed related to dust are not considered significant. However, product may contain substances that could be potential hazards if caused to become airborne due to grinding, sanding or other abrasive processes.

Other information
Toxic to aquatic life with long lasting effects
SEE SAFETY DATA SHEET
Acute Toxicity

70.8 % of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPOXY RESIN (LER)</td>
<td>25085-99-8</td>
<td>60 - 100%</td>
</tr>
<tr>
<td>ETHYLENE GLYCOL MONOPROPYL ETHER (SKIN)</td>
<td>2807-30-9</td>
<td>10 - 30%</td>
</tr>
</tbody>
</table>

*The exact percentage (concentration) of composition has been withheld as a trade secret.*
4. FIRST AID MEASURES

Description of first aid measures

General advice
If symptoms persist, call a physician.

Eye contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

Skin contact
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Call a physician immediately.

Inhalation
Remove to fresh air. Oxygen or artificial respiration if needed.

Ingestion
If swallowed, do not induce vomiting. Get medical attention immediately.

Self-protection of the first aider
Use personal protective equipment. Avoid contact with eyes, skin and clothing.

Most important symptoms and effects, both acute and delayed

Notes to physician
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Carbon dioxide. Foam. Dry chemical.

Unsuitable extinguishing media
Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical
Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.

Hazardous combustion products

Protective equipment and precautions for firefighters
Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. MAY CAUSE HEAT AND PRESSURE BUILD-UP IN CLOSED CONTAINERS. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions
Avoid contact with eyes, skin and clothing. Use personal protective equipment. Remove all sources of ignition.

Environmental Precautions

Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

Methods and material for containment and cleaning up

Methods for containment
Remove all sources of ignition. Spills may be collected with inert, absorbent material for proper disposal. Use non-sparking tools, protective gloves, goggles and clothing, adequate ventilation, avoid the breathing of vapors and use respiratory protective devices. Transfer absorbent material to suitable containers for proper disposal.
Methods for cleaning up
If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling
Close container after each use. Avoid contact with eyes, skin and clothing. Do not eat, drink or smoke when using this product. If splashes are likely to occur, wear goggles. Wear protective gloves/clothing. Do not burn, or use a cutting torch on, the empty drum. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage
Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children.

Incompatible products

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters
Exposure guidelines

Appropriate engineering controls
Sufficient ventilation, in volume and pattern, should be provided through both local and general exhaust to keep the air contaminant concentration below current applicable OSHA Permissible Exposure Limits (PEL) and ACGIH’s Threshold Limit Values (TLV). Appropriate ventilation should be employed to remove hazardous decomposition products formed during welding or flame cutting operations of surfaces coated with this product.

Individual protection measures, such as personal protective equipment

Eye/face protection
Use chemical resistant splash type goggles. If splashes are likely to occur, wear face-shield.

Skin and body protection
Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory protection
Use only with adequate ventilation. Do not breathe vapors, spray mist, or dust. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist or dust levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH/MSHA approved) during and after application. Follow respirator manufacturer’s directions for respirator use.

General hygiene considerations
Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust created by cutting, sanding, or grinding.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state
liquid

Appearance
light yellow

Color
No information available

Odor
Slight

Odor threshold
No information available

Property
pH

Values
No information available

Remarks
No data available
10. STABILITY AND REACTIVITY

Reactivity
No data available

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
None under normal processing.

Conditions to avoid
Heat, flames and sparks. Amines.

Incompatible materials
Acids, Bases, Amines, Strong oxidizing agents

Hazardous decomposition products

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation  May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination. May cause irritation.

Eye contact  Causes serious eye irritation.

Skin contact  Irritating to skin. May cause sensitization by skin contact.

Ingestion  Harmful if swallowed.

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
ETHYLENE GLYCOL MONOPROPYL ETHER (SKIN) 2807-30-9

<table>
<thead>
<tr>
<th></th>
<th>Rat</th>
<th>Rabbit</th>
</tr>
</thead>
<tbody>
<tr>
<td>= 3089 mg/kg</td>
<td>(Rat)</td>
<td></td>
</tr>
<tr>
<td>= 870 mg/kg</td>
<td>(Rabbit)</td>
<td>960 µL/kg</td>
</tr>
<tr>
<td>= 1530 ppm</td>
<td>(Rat)</td>
<td>7 h</td>
</tr>
</tbody>
</table>

Information on toxicological effects

Symptoms
Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Skin disorders. Irritating to eyes and skin.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity
NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Skin sensitizer.

Sensitization
May cause sensitization of susceptible persons.

Mutagenicity
No information available.

Carcinogenicity
There are no known carcinogenic chemicals in this product.

Reproductive effects
No information available.

STOT - single exposure
No information available

STOT - repeated exposure
No information available

Aspiration hazard
No information available.

Acute Toxicity
70.8% of the mixture consists of ingredient(s) of unknown toxicity.

12. ECOLOGICAL INFORMATION

Ecotoxicity
Toxic to aquatic life with long lasting effects

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

<table>
<thead>
<tr>
<th>Component</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to daphnia</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPOXY RESIN (LER)</td>
<td>11 mg/L 72 hr</td>
<td>2 mg/L 96 hr Oncorhynchus mykiss</td>
<td>1.8 mg/L 48h</td>
</tr>
</tbody>
</table>

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Mobility in Environmental Media

Other Adverse Effects
No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods
Disposal Methods
Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Contaminated packaging
Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION
DOT

Proper Shipping Name  paint in oil Not regulated

IATA

UN/ID no.  1263
Proper Shipping Name  paint
Hazard Class  3
Packing Group  III
ERG Code  366

Additional information  Call TNEMEC Traffic Department - 816-474-3400 for additional information or other modes of Transportation.

15. REGULATORY INFORMATION

International Inventories

TSCA  Complies
DSL/NDSL  Complies
EINECS/ELINCS  Does not comply
ENCS  Complies
IECSC  Complies
KECL  Complies
PICCS  Complies
AICS  Complies

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):
Component  ETHYLENE GLYCOL MONOPROPYL ETHER (SKIN)  HAPs Data

United States of America

SARA 313
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<td>1.0</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazardous

Categorization

<table>
<thead>
<tr>
<th>Categorization</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Health Hazard</td>
<td>Yes</td>
</tr>
<tr>
<td>Chronic Health Hazard</td>
<td>No</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>Yes</td>
</tr>
<tr>
<td>Sudden Release of Pressure Hazard</td>
<td>No</td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td>No</td>
</tr>
</tbody>
</table>

CERCLA

United States of America

Page 7 / 8
California Prop. 65
This product does not contain any Proposition 65 chemicals

California SCAQMD Rule 443
Contains Photochemically Reactive Solvent

State Right-to-Know

<table>
<thead>
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<th>Component</th>
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<th>Massachusetts</th>
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<tbody>
<tr>
<td>ETHYLENE GLYCOL MONOPROPYL ETHER (SKIN) 2807-30-9</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health</th>
<th>Flammability</th>
<th>Instability</th>
<th>Physical hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HMIS (Hazardous Material Information System)</th>
<th>Health</th>
<th>Flammability</th>
<th>Reactivity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Prepared By Tnemec Regulatory Dept: 816-474-3400
Revision Date 08-Jul-2015
Revision Summary 9 4 5 7 10 8 11 14 15

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End of MSDS