1. IDENTIFICATION

Product identifier
Product Code S297-00WHA
Product Name ENVIRO-GLAZE TNEMEC WHITE

Other means of identification
Common Name SERIES 297, PART A
Synonyms None

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 816-474-3400
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 Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 2</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Category 1B</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Category 1A</td>
</tr>
<tr>
<td>Reproductive Toxicity</td>
<td>Category 2</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 serious eye irritation
May cause genetic defects
May cause cancer
Suspected of damaging fertility or the unborn child
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
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 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

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

Hazards not otherwise classified (HNOC)

Other information
Causes mild skin irritation
Harmful to aquatic life with long lasting effects
Acute Toxicity 21.75647 % of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical name</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 - &lt;30%</td>
</tr>
<tr>
<td>Trade secret</td>
<td></td>
<td>1 - &lt;10%</td>
</tr>
<tr>
<td>AMORPHOUS SILICA</td>
<td>7631-86-9</td>
<td>1 - &lt;10%</td>
</tr>
<tr>
<td>AROMATIC PETROLEUM DISTILLATE</td>
<td>64742-95-6</td>
<td>1 - &lt;10%</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 thoroughly with plenty of water for at least 15 minutes.
Skin contact   Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
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
Itching. Burning.

Notes to physician
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Carbon dioxide. Dry chemical. Foam.

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

Specific hazards arising from the chemical
In the event of fire and/or explosion do not breathe fumes Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds.

Hazardous combustion products
Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds. Carbon dioxide. Hydrocarbons.

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.

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. Ensure adequate ventilation.

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
Handle in accordance with good industrial hygiene and safety practice. Wear personal
protective equipment. Avoid contact with eyes, skin and clothing. Remove and wash contaminated clothing before re-use. Keep away from open flames, hot surfaces and sources of ignition. Do not breathe vapours or spray mist. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage
Keep tightly closed in a dry and cool place. Keep away from heat, sparks and flame.

Incompatible products

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Control parameters

**Exposure guidelines**

<table>
<thead>
<tr>
<th>Chemical name</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 TWA: 15 mg/m³</td>
<td>5000 mg/m³</td>
</tr>
<tr>
<td>Trade secret</td>
<td>TWA: 20 ppm</td>
<td>TWA: 25 ppm TWA: 120 mg/m³ Skin TWA: 50 ppm TWA: 240 mg/m³</td>
<td>700 ppm</td>
</tr>
<tr>
<td>AMORPHOUS SILICA 7631-86-9</td>
<td>-</td>
<td>TWA: 6 mg/m³</td>
<td>3000 mg/m³</td>
</tr>
</tbody>
</table>

#### Appropriate engineering controls

**Engineering 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.

**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>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>liquid</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>opaque</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>No information available</td>
<td>Odor</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Property</td>
<td>Value</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>100 °C / 212.0 °F</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>110 °C / 230.0 °F</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Flammability Limit in Air</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Upper flammability limit</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td>1.1</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Vapor density</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Specific gravity</td>
<td>1.35456 g/cm³</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>Insoluble in cold water</td>
<td></td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Kinematic viscosity</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Dynamic viscosity</td>
<td>600 centipoises approx</td>
<td></td>
</tr>
<tr>
<td>Density</td>
<td>11.29705 lbs/gal</td>
<td></td>
</tr>
<tr>
<td>Volatile organic compounds (VOC) content</td>
<td>1.17397 lbs/gal</td>
<td></td>
</tr>
<tr>
<td>Total volatiles weight percent</td>
<td>39.78 %</td>
<td></td>
</tr>
<tr>
<td>Total volatiles volume percent</td>
<td>54.9 %</td>
<td></td>
</tr>
<tr>
<td>Bulk density</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>100 °C / 212.0 °F</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
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<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
<td></td>
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<td>Flammability Limit in Air</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Upper flammability limit</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td>1.1</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
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</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Kinematic viscosity</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Dynamic viscosity</td>
<td>600 centipoises approx</td>
<td></td>
</tr>
</tbody>
</table>

### 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**

Incompatible with oxidizing agents, Acids, Bases

**Hazardous decomposition products**

Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds. Carbon dioxide. Hydrocarbons.

### 11. TOXICOLOGICAL INFORMATION

**Information on Likely Routes of Exposure**

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

- **Eye contact**
  
  Irritating to eyes.

- **Skin contact**
  
  Irritating to skin. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.
## Ingestion

Harmful if swallowed.

<table>
<thead>
<tr>
<th>Chemical name</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>Trade secret</td>
<td>= 470 mg/kg (Rat)</td>
<td>= 99 mg/kg (Rabbit)</td>
<td>= 450 ppm (Rat) 4 h = 486 ppm (Rat) 4 h</td>
</tr>
<tr>
<td>AMORPHOUS SILICA 7631-86-9</td>
<td>= 7900 mg/kg (Rat)</td>
<td>&gt; 2000 mg/kg (Rabbit)</td>
<td>&gt; 2.2 mg/L (Rat) 1 h</td>
</tr>
<tr>
<td>AROMATIC PETROLEUM DISTILLATE 64742-95-6</td>
<td>= 8400 mg/kg (Rat)</td>
<td>&gt; 2000 mg/kg (Rabbit)</td>
<td>= 3400 ppm (Rat) 4 h</td>
</tr>
</tbody>
</table>

## Information on toxicological effects

### Symptoms
Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Skin disorders.

### 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. Contains ethylene glycol monobutyl ether which may cause blood damage based on animal data. May cause cancer. Substances known to impair fertility. Substances known to be mutagenic to man.

**Sensitization**

No information available.

**Mutagenicity**

Substances which should be regarded as being mutagenic to man.

**Carcinogenicity**

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

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7</td>
<td>-</td>
<td>Group 2B</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>Trade secret</td>
<td>A3</td>
<td>Group 3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>AMORPHOUS SILICA 7631-86-9</td>
<td>Group 1</td>
<td>Group 3</td>
<td>Known</td>
<td></td>
</tr>
<tr>
<td>AROMATIC PETROLEUM DISTILLATE 64742-95-6</td>
<td>*</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Reproductive effects**

Suspected of damaging fertility or the unborn child.

**STOT - single exposure**

Skin, blood

**STOT - repeated exposure**

Causes damage to organs through prolonged or repeated exposure. Blood, central nervous system, eyes, hematopoietic system, kidney, liver, lungs, respiratory system, skin.

**Aspiration hazard**

No information available.

**Acute Toxicity**

21.75647 % of the mixture consists of ingredient(s) of unknown toxicity. The following values are calculated based on chapter 3.1 of the GHS document.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Harmful to aquatic life with long lasting effects

29.89400099 % of the mixture consists of components(s) of unknown hazards to the aquatic environment.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to daphnia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade secret</td>
<td>2950: 96 h Lepomis macrochirus mg/L LC50 1490: 96 h Lepomis macrochirus mg/L LC50 static</td>
<td>1698 - 1940: 24 h Daphnia magna mg/L EC50 1000: 48 h Daphnia magna mg/L EC50</td>
<td></td>
</tr>
<tr>
<td>AMORPHOUS SILICA 7631-86-9</td>
<td>440: 72 h Pseudokirchneriella subcapitata mg/L EC50</td>
<td>5000: 96 h Brachydanyo rerto mg/L LC50 static</td>
<td>7600: 48 h Ceriodaphnia dubia mg/L EC50</td>
</tr>
</tbody>
</table>
Persistence and degradability
No information available.

Bioaccumulation
No information available.

Mobility in Environmental Media

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade secret</td>
<td>0.81</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.

US EPA Waste Number

<table>
<thead>
<tr>
<th>Chemical name</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>XYLENE</td>
<td></td>
<td>Included in waste stream:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1330-20-7</td>
<td></td>
<td>F039</td>
<td>U239</td>
<td></td>
</tr>
<tr>
<td>1,4 DIOXANE</td>
<td>U108</td>
<td>Included in waste stream:</td>
<td>U108</td>
<td></td>
</tr>
<tr>
<td>123-91-1</td>
<td></td>
<td>F039</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14. TRANSPORT INFORMATION

DOT
Proper Shipping Name
paint, water base freezable NOT REGULATED

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

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td>Complies</td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td>Does Not Comply</td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td>Does Not Comply</td>
</tr>
<tr>
<td>ENCS</td>
<td>Does Not Comply</td>
</tr>
<tr>
<td>IECSC</td>
<td>Does Not Comply</td>
</tr>
<tr>
<td>KECL</td>
<td>Does Not Comply</td>
</tr>
<tr>
<td>PICCS</td>
<td>Does Not Comply</td>
</tr>
<tr>
<td>AICS</td>
<td>Does Not Comply</td>
</tr>
</tbody>
</table>

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):

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>SARA 313 - Threshold Values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.0</td>
</tr>
</tbody>
</table>

**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>Chemical name</th>
<th>SARA 311/312 Hazardous Categorization</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Acute Health Hazard</td>
</tr>
<tr>
<td></td>
<td>Chronic Health Hazard</td>
</tr>
<tr>
<td></td>
<td>Fire Hazard</td>
</tr>
<tr>
<td></td>
<td>Sudden Release of Pressure Hazard</td>
</tr>
<tr>
<td></td>
<td>Reactive Hazard</td>
</tr>
</tbody>
</table>

**California Prop. 65**
WARNING: This product can expose you to the following chemicals which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

**California SCAQMD Rule 443**
Contains Photochemically Reactive Solvent

**State Right-to-Know**

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITANIUM DIOXIDE (TOTAL DUST) - 13463-67-7</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Trade secret -</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>AMORPHOUS SILICA - 7631-86-9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUTYL CARBITOL -</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CARBON BLACK DUST &amp; FUME - 1333-86-4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,4 DIOXANE - 123-91-1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETHANOL - 64-17-5</td>
<td></td>
<td></td>
<td></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>HMI (Hazardous Material Information System)</td>
<td>Health</td>
<td>Flammability</td>
<td>Reactivity</td>
<td></td>
</tr>
</tbody>
</table>

Page 8 / 9
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 nor any of its subsidiaries assume any liability whatsoever for the accuracy or 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 SDS
1. IDENTIFICATION

Product identifier
Product Code S297-0297B
Product Name ENVIRO-GLAZE CONVERTER

Other means of identification
Common Name SERIES 297 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 816-474-3400
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)

Acute toxicity - Inhalation (Vapors) Category 4
Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 2A
Respiratory sensitization Category 1
Skin sensitization Category 1

Label elements

EMERGENCY OVERVIEW

Danger

Hazard statements
Harmful if inhaled
Causes skin irritation
Causes serious eye irritation
May cause allergy or asthma symptoms or breathing difficulties if inhaled
May cause an allergic skin reaction
Precautionary Statements

Prevention
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
In case of inadequate ventilation wear respiratory protection
Contaminated work clothing should not be allowed out of the workplace

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
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
If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician

Storage
Store locked up
Keep away from children

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

Hazards not otherwise classified (HNOC)

Other information
Acute Toxicity
35.8 % 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>HEXAMETHYLENE DIISOCYANATE (HDI) POLYMER</td>
<td>28182-81-2</td>
<td>60 - 100%</td>
</tr>
<tr>
<td>POLYISOCYANATE PREPOLYMER</td>
<td>-</td>
<td>30 - 60%</td>
</tr>
<tr>
<td>HEXAMETHYLENE DIISOCYANATE (HDI) MONOMER</td>
<td>822-06-0</td>
<td>0.1 - 1%</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 thoroughly with plenty of water for at least 15 minutes.
Skin contact  Wash affected area with soap and water. Remove contaminated clothing. Dispose of or launder accordingly. Consult a physician if skin irritation persists.

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

Most important symptoms and effects  Asthma-like and/ or skin allergy-like symptoms.

Notes to physician  Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media  Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media  Water.

Specific hazards arising from the chemical
Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds. In the event of fire and/or explosion do not breathe fumes.

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.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions  Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid contact with eyes, skin and clothing. Use personal protective equipment.

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  Spills may be collected with inert, absorbent material for proper disposal. Use protective gloves, goggles and clothing, adequate ventilation, avoid the breathing of vapors and use respiratory protective devices. Transfer absorbent material to suitable container for 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. Use personal protective equipment.

7. HANDLING AND STORAGE

Precautions for safe handling
Handling

Use only with adequate ventilation. 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

Close container after each use. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.

Incompatible products


8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEXAMETHYLENE DIISOCYANATE (HDI)</td>
<td>TWA: 0.005 ppm</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>MONOMER 822-06-0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Appropriate engineering controls

Engineering 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

Safety glasses with side-shields 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

INDIVIDUALS WITH LUNG OR BREATHING PROBLEMS OR PRIOR REACTION TO ISOCYANATES MUST NOT BE EXPOSED TO VAPOR OR SPRAY MIST. Do not breathe vapor or spray mist. Wear an appropriate, properly fitted respirator (NIOSH/MSHA approved) during and after application unless air monitoring demonstrates vapor/mist levels are below applicable limits. An airline respirator (TC 19C NIOSH/MSHA) is recommended. A vapor-particulate respirator (TC 23C NIOSH/MSHA) may be appropriate where air monitoring demonstrates vapors are less than ten times the applicable exposure limits and the isocyanate concentration is less than its applicable exposure limit. The use of an air-supplied respirator is mandatory whenever the airborne concentration of isocyanate monomer is unknown.

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>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td></td>
<td>No data available</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Odor</th>
<th>Odor threshold</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEXAMETHYLENE DIISOCYANATE (HDI)</td>
<td>Slight Organic</td>
<td>No information available</td>
<td></td>
</tr>
</tbody>
</table>
10. STABILITY AND REACTIVITY

Reactivity
Water reactive, Amines, Alcohols

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
None under normal processing.

Conditions to avoid
Heat, flames and sparks.

Incompatible materials
Water, Amines, Strong bases, copper, Alcohols

Hazardous decomposition products

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation
Contains isocyanate monomer. If subject to spray application, engineering and administrative controls must be instituted to maintain an exposure level below .005ppm. If these controls are not adequate, the use of an air-supplied respirator is mandatory. May cause sensitization of susceptible persons.

Eye contact
Irritating to eyes.

Skin contact
Irritating to skin. May cause sensitization of susceptible persons.

Ingestion
Harmful if swallowed.

Density
9.69970 lbs/gal

Volatile organic compounds (VOC) content
.000 lbs/gal

Total volatiles weight percent
.0000 %

Total volatiles volume percent
.0000 %
### Information on toxicological effects

**Symptoms**
Respiratory disorders. Skin disorders.

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

- **Skin corrosion/irritation**: May cause irritation.
- **Eye damage/irritation**: Irritating to eyes.
- **Chronic Toxicity**: Avoid repeated exposure. Contains isocyanates. May produce an allergic reaction.
- **Sensitization**: May cause sensitization of susceptible persons.
- **Carcinogenicity**: No information available.
- **Mutagenicity**: No information available.
- **Reproductive effects**: No information available.
- **STOT - single exposure**: No information available.
- **STOT - repeated exposure**: No information available.
- **Target organ effects**: Respiratory system, Skin.
- **Aspiration hazard**: Based on product level data, this product does not meet the requirement to be classified as an aspiration hazard. However, this product contains an ingredient that may cause aspiration if swallowed.

**Acute Toxicity**
35.8% of the mixture consists of ingredient(s) of unknown toxicity.

### 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

99.8% 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>HEXAMETHYLENE DIISOCYANATE (HD) MONOMER 822-06-0</td>
<td>26.1: 96 h Brachydanio rerio mg/L LC50 static</td>
<td>26.1: 96 h Brachydanio rerio mg/L LC50 static</td>
<td></td>
</tr>
</tbody>
</table>

**Persistence and degradability**
No information available.

**Bioaccumulation**
No information available.

**Mobility in Environmental Media**
No information available.

**Other Adverse Effects**
No information available

### 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods**

<table>
<thead>
<tr>
<th>Disposal Methods</th>
<th>Contaminated packaging</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td>Empty containers should be taken to an approved waste handling site for recycling or disposal.</td>
</tr>
</tbody>
</table>
14. TRANSPORT INFORMATION

DOT
  Proper Shipping Name  PAINT & RELATED MATERIAL

IATA

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

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Compliance Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td>Complies</td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td>Complies</td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td>Complies</td>
</tr>
<tr>
<td>ENCS</td>
<td>Does not comply</td>
</tr>
<tr>
<td>IECSC</td>
<td>Complies</td>
</tr>
<tr>
<td>KECL</td>
<td>Complies</td>
</tr>
<tr>
<td>PICCS</td>
<td>Complies</td>
</tr>
<tr>
<td>AICS</td>
<td>Complies</td>
</tr>
</tbody>
</table>

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  HAPS Data
HEXAMETHYLENE DIISOCYANATE (HDI) MONOMER

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 40 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>HEXAMETHYLENE DIISOCYANATE (HDI) MONOMER - 822-06-0</td>
<td>1.0</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazardous

<table>
<thead>
<tr>
<th>Categorization</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Health Hazard</td>
<td>Yes</td>
</tr>
<tr>
<td>Chronic Health Hazard</td>
<td>Yes</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>No</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

<table>
<thead>
<tr>
<th>Component</th>
<th>Hazardous Substances RQs</th>
<th>CERCLA EHS RQs</th>
<th>RQ</th>
</tr>
</thead>
</table>
United States of America

California Prop. 65
None of the ingredients are listed with California Proposition 65.

California SCAQMD Rule 443
Does Not Contain 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>
<tbody>
<tr>
<td>HEXAMETHYLENE DIISOCYANATE (HDI) MONOMER 822-06-0</td>
<td>X</td>
<td>X</td>
<td></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>1</td>
<td>1</td>
<td>*</td>
</tr>
</tbody>
</table>

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

Prepared By Tnemec Regulatory Dept: 816-474-3400
Revision Date 11-Jul-2016
Revision Summary 9 4 5 6 7 10 8 11 14 15
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