1. IDENTIFICATION

Product identifier
Product Code  S245-0245A
Product Name  ULTRA-TREAD S

Other means of identification
Common Name  SERIES 241/242/245, 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.

2. HAZARDS IDENTIFICATION

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

| Label elements | 
| --- | --- |
| Skin sensitization | Category 1 |
| Germ cell mutagenicity | Category 1B |
| Carcinogenicity | Category 1B |
| Reproductive Toxicity | Category 1B |

Label elements

EMERGENCY OVERVIEW

Danger

Hazard statements
May cause an allergic skin reaction
May cause genetic defects
May cause cancer
May damage fertility or the unborn child
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
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing should not be allowed out of the workplace
Wear protective gloves

Response
IF exposed or concerned: Get medical advice/attention
IF ON SKIN: Wash with plenty of soap and water
If skin irritation or rash occurs: Get medical advice/attention
Wash contaminated clothing before reuse

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
Causes mild skin irritation
Very toxic to aquatic life with long lasting effects
SEE SAFETY DATA SHEET

Acute Toxicity
55.7018 % 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>BUTYL BENZYL PHTHALATE</td>
<td>85-68-7</td>
<td>10 - 30%</td>
</tr>
<tr>
<td>ALKYL GLYCIDYL ETHER</td>
<td>68609-97-2</td>
<td>1 - 10%</td>
</tr>
<tr>
<td>1-DODECENE</td>
<td>112-41-4</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
Show this safety data sheet to the doctor in attendance.

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. If symptoms persist, 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
Treat symptomatically.

Notes to physician
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Unsuitable extinguishing media
No information available.

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.

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

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

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>Odor</td>
</tr>
<tr>
<td>Appearance</td>
<td>opaque</td>
<td>Odor threshold</td>
</tr>
<tr>
<td>Color</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td></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>60 °C / 140 °F</td>
<td>Pensky Martens - Closed Cup</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability Limit in Air</td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Upper flammability limit</td>
<td>N/A</td>
<td>No data available</td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td>N/A</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Revision Date 10-Jan-2017
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
Strong oxidizing agents, Strong bases, Strong acids

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.

Eye contact
Irritating to eyes.

Skin contact
Irritating to skin.

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>BUTYL BENZYL PHTHALATE 85-68-7</td>
<td>= 2330 mg/kg (Rat)</td>
<td>= 6700 mg/kg (Rat)</td>
<td>&gt; 6.7 mg/L (Rat) 4 h</td>
</tr>
<tr>
<td>ALKYL GLYCIDYL ETHER 68609-97-2</td>
<td>= 17100 mg/kg (Rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-DODECENE 112-41-4</td>
<td>&gt; 10000 mg/kg (Rat)</td>
<td>&gt; 10000 mg/kg (Rat)</td>
<td></td>
</tr>
</tbody>
</table>

Information on toxicological effects
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.

**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>BUTYL BENZYL PHTHALATE 85-68-7</td>
<td></td>
<td>Group 3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Reproductive effects**

May damage fertility or the unborn child.

**Developmental effects**

Developmental effects.

**STOT - single exposure**

No information available

**STOT - repeated exposure**

No information available

**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**

55.7018 % of the mixture consists of ingredient(s) of unknown toxicity.

### 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

Very toxic to aquatic life with long lasting effects

58.2874 % 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>BUTYL BENZYL PHTHALATE 85-68-7</td>
<td>0.02 - 0.25: 96 h</td>
<td>1.0 - 10.0: 96 h Lepomis macrochirrus mg/L LC50 static 1.0 - 10.0: 96 h Oncorhynchus mykiss mg/L LC50 static 1.39 - 3.88: 96 h Pimephales promelas mg/L LC50 flow-through 0.82: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.78: 96 h Pimephales promelas mg/L LC50 static</td>
<td>1.28: 48 h Daphnia magna mg/L EC50 semi-static 0.76: 48 h Daphnia magna mg/L EC50 Flow through 0.97: 48 h Daphnia magna mg/L EC50 0.9 - 1.1: 48 h Daphnia magna mg/L EC50 Static</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>BUTYL BENZYL PHTHALATE 85-68-7</td>
<td>3.57 - 4.91</td>
</tr>
</tbody>
</table>

**Other Adverse Effects**

No information available

### 13. DISPOSAL CONSIDERATIONS

**Waste treatment 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>BUTYL BENZYL PHTHALATE 85-68-7</td>
<td>Included in waste stream: F039</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14. TRANSPORT INFORMATION

**DOT**

Proper Shipping Name: paint, water base freezable
Not regulated

**IATA**

<table>
<thead>
<tr>
<th>UN/ID no.</th>
<th>Proper Shipping Name</th>
<th>Hazard Class</th>
<th>Packing Group</th>
<th>ERG Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1263</td>
<td>paint</td>
<td>3</td>
<td>III</td>
<td>366</td>
</tr>
</tbody>
</table>

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

**United States of America**

**SARA 313**

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

**SARA 311/312 Hazardous.**

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

<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>BUTYL BENZYL PHTHALATE 85-68-7</td>
<td>X</td>
<td>X</td>
<td></td>
<td></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>BUTYL BENZYL PHTHALATE 85-68-7</td>
<td>100 lb</td>
<td></td>
<td>RQ 100 lb 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>BUTYL BENZYL PHTHALATE 85-68-7</td>
<td>Developmental</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>
<tbody>
<tr>
<td>BUTYL BENZYL PHTHALATE 85-68-7</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

### 16. OTHER INFORMATION

- **NFPA**
  - Health 2
  - Flammability 1
  - Instability 1
  - Physical hazard *
- **HMIS (Hazardous Material Information System)**
  - Health 2*
  - Flammability 1
  - Reactivity 1

**Prepared By**
Tnemec Regulatory Dept: 816-474-3400
**Revision Date**
10-Jan-2017
**Revision Summary**
9 4 5 7 10 11 14 15 1

**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 SDS
1. IDENTIFICATION

Product identifier
Product Code S245-0245B
Product Name ULTRA-TREAD S CONVERTER

Other means of identification
Common Name SERIES 241/242/245, 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 2B
Respiratory sensitization Category 1
Skin sensitization Category 1
Specific target organ toxicity (single exposure) Category 3
Specific target organ toxicity (repeated exposure) Category 1

Label elements

EMERGENCY OVERVIEW

Danger

Hazard statements Harmful if inhaled
Causes skin irritation
Causes eye irritation
May cause allergy or asthma symptoms or breathing difficulties if inhaled
May cause an allergic skin reaction
May cause respiratory irritation
Causes damage to organs through prolonged or repeated exposure
Precautionary Statements

Prevention
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
Do not breathe dust/fume/gas/mist/vapors/spray
Do not eat, drink or smoke when using this product

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 in a well-ventilated place. Keep container tightly closed
Store locked up

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

Hazards not otherwise classified (HNOC)

Other information
SEE SAFETY DATA SHEET
Acute Toxicity 0 % 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>DIPHENYL METHANE DIISOCYANATE (MDI) POLYMER</td>
<td>9016-87-9</td>
<td>30 - 60%</td>
</tr>
<tr>
<td>DIPHENYL METHANE DIISOCYANATE (VOLATILE MONOMER)</td>
<td>101-68-8</td>
<td>30 - 60%</td>
</tr>
<tr>
<td>DIPHENYL METHANE DIISOCYANATE (MDI) POLYMER</td>
<td>5873-54-1</td>
<td>10 - 30%</td>
</tr>
<tr>
<td>2,2'-DIPHENYL METHANE DIISOCYANATE</td>
<td>2536-05-2</td>
<td>1 - 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  Show this safety data sheet to the doctor in attendance.

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. If symptoms persist, 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  Avoid breathing vapors or mists.

Most important symptoms and effects, both acute and delayed

Notes to physician  Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Carbon dioxide. Dry chemical. Dry powder.

Unsuitable extinguishing media  Water.

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.


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


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>DIPHENYLMETHANE DIISOCYANATE (VOLATILE MONOMER) 101-68-8</td>
<td>TWA: 0.005 ppm</td>
<td>Ceiling: 0.02 ppm Ceiling: 0.2 mg/m³</td>
<td>75 mg/m³</td>
</tr>
</tbody>
</table>

NIOSH IDLH: Immediately Dangerous to Life or Health

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>Value</th>
<th>Odor</th>
<th>Odor threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>liquid</td>
<td>Slight</td>
<td>No information available</td>
</tr>
<tr>
<td>Appearance</td>
<td>clear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>No information available</td>
<td></td>
<td>No information available</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
Water, Amines, Strong bases, Alcohols, copper

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
Severely irritating to eyes.
### Skin contact
Irritating to skin. May cause sensitization of susceptible persons.

### Ingestion
Harmful if swallowed.

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral (D)</th>
<th>LD50 Dermal (Rabbit)</th>
<th>LC50 Inhalation (Rat) 4 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIPHENYL METHANE DIISOCYANATE (MDI) POLYMER 9016-87-9</td>
<td>= 49 g/kg</td>
<td>&gt; 9.4 g/kg (Rabbit)</td>
<td>= 490 mg/m³ (Rat) 4 h</td>
</tr>
<tr>
<td>DIPHENYL METHANE DIISOCYANATE (VOLATILE MONOMER) 101-68-8</td>
<td>= 31600 mg/kg</td>
<td>= 9200 mg/kg</td>
<td>= 369 mg/m³ (Rat) 4 h</td>
</tr>
</tbody>
</table>

### Information on toxicological effects

#### Symptoms
Respiratory disorders. Skin disorders.

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

#### Chronic Toxicity
Avoid repeated exposure. Contains isocyanates. May produce an allergic reaction.

#### Sensitization
May cause sensitization of susceptible persons.

#### Mutagenicity
No information available.

#### 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>DIPHENYL METHANE DIISOCYANATE (MDI) POLYMER 9016-87-9</td>
<td>Group 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIPHENYL METHANE DIISOCYANATE (VOLATILE MONOMER) 101-68-8</td>
<td>Group 3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Reproductive effects
No information available.

#### STOT - single exposure
Eyes, Skin, Respiratory system

#### STOT - repeated exposure
Causes damage to organs through prolonged or repeated exposure

#### Target organ effects
Eyes, respiratory system.

#### 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
0 % 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
48 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

#### 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 & 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>Does not comply</td>
</tr>
<tr>
<td>ENCS</td>
<td>Complies</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):

<table>
<thead>
<tr>
<th>Component</th>
<th>HAPS Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIPHENYLMETHANE DIISOCYANATE (VOLATILE MONOMER)</td>
<td></td>
</tr>
</tbody>
</table>

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>DIPHENYLMETHANE DIISOCYANATE (MDI) POLYMER - 9016-87-9</td>
<td>1.0</td>
</tr>
<tr>
<td>DIPHENYLMETHANE DIISOCYANATE (VOLATILE MONOMER) - 101-68-8</td>
<td>1.0</td>
</tr>
<tr>
<td>DIPHENYLMETHANE DIISOCYANATE (MDI) POLYMER - 5873-54-1</td>
<td>1.0</td>
</tr>
<tr>
<td>2,2'-DIPHENYLMETHANE DIISOCYANATE - 2536-05-2</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

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>DIPHENYLMETHANE DIISOCYANATE (VOLATILE MONOMER) 101-68-8</td>
<td>5000 lb</td>
<td>RQ 5000 lb final RQ</td>
<td>RQ 2270 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

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>
<tbody>
<tr>
<td>DIPHENYLMETHANE DIISOCYANATE (MDI) POLYMER 9016-87-9</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIPHENYLMETHANE DIISOCYANATE (VOLATILE MONOMER) 101-68-8</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>DIPHENYLMETHANE DIISOCYANATE (MDI) POLYMER 5873-54-1</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,2'-DIPHENYLMETHANE DIISOCYANATE 2536-05-2</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

16. OTHER INFORMATION

NFPA
HMIS (Hazardous Material Information System)

Prepared By Tnemec Regulatory Dept: 816-474-3400
Revision Date 09-Feb-2017
Revision Summary 9 4 5 6 7 10 8 11 14 1
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 SDS
1. IDENTIFICATION

Product identifier
Product Code: S241-0241C
Product Name: ULTRA-TREAD MVT AGGREGATE

Other means of identification
Common Name: SERIES 241 PART C

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
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>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - Oral</td>
</tr>
<tr>
<td>Acute toxicity - Inhalation (Dusts/Mists)</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
</tr>
<tr>
<td>Skin sensitization</td>
</tr>
<tr>
<td>Carcinogenicity</td>
</tr>
<tr>
<td>Specific target organ toxicity (single exposure)</td>
</tr>
<tr>
<td>Specific target organ toxicity (repeated exposure)</td>
</tr>
</tbody>
</table>

Label elements

EMERGENCY OVERVIEW

Danger

Hazard statements
Harmful if swallowed
Harmful if inhaled
Causes skin irritation
Causes serious eye damage
May cause an allergic skin reaction
May cause cancer
May cause respiratory irritation
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
Do not eat, drink or smoke when using this product
Use only outdoors or in a well-ventilated area
Contaminated work clothing should not be allowed out of the workplace
Wear protective gloves
Do not breathe dust/fume/gas/mist/vapors/spray

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
Immediately call a POISON CENTER or doctor/physician
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 SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth

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)

Other information
May be harmful in contact with skin
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
Exposure of sufficient duration to wet cement, or to dry cement on moist areas of the body, can cause serious, potentially irreversible tissue (skin, eye, respiratory tract) damage due to chemical (caustic) burns, including third degree burns
SEE SAFETY DATA SHEET
Acute Toxicity
32.99025 % 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>CRYSTALLINE SILICA (QUARTZ)</td>
<td>14808-60-7</td>
<td>30 - 60%</td>
</tr>
<tr>
<td>CALCIUM SILICATES AND ALUMINATES</td>
<td>65997-15-1</td>
<td>10 - 30%</td>
</tr>
<tr>
<td>CALCIUM HYDROXIDE</td>
<td>1305-62-0</td>
<td>10 - 30%</td>
</tr>
</tbody>
</table>
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. If symptoms persist, 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

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
No information available.

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
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 (CO2). Hydrocarbons.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

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
Shovel or sweep up.

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. Tightly fitting safety goggles. Wear protective gloves/clothing. 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
Halogenated compounds. Oxides of phosphorous.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

<table>
<thead>
<tr>
<th>Exposure guidelines</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRYSALLINE 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>CALCICUM SILICATES AND ALUMINATES 65997-15-1</td>
<td>TWA: 1 mg/m³</td>
<td>TWA: 10 mg/m³</td>
<td>TWA: 5 mg/m³</td>
</tr>
<tr>
<td>CALCICUM HYDROXIDE 1305-62-0</td>
<td>TWA: 5 mg/m³</td>
<td>TWA: 5 mg/m³</td>
<td>TWA: 15 mg/m³</td>
</tr>
<tr>
<td>IRON OXIDE FUME 1309-37-1</td>
<td>TWA: 5 mg/m³</td>
<td>TWA: 10 mg/m³</td>
<td>TWA: 5 mg/m³</td>
</tr>
<tr>
<td>GYPSUM 13397-24-5</td>
<td>TWA: 10 mg/m³</td>
<td>TWA: 15 mg/m³</td>
<td>TWA: 5 mg/m³</td>
</tr>
<tr>
<td>MAGNEZIUM OXIDE 1309-48-4</td>
<td>TWA: 10 mg/m³</td>
<td>TWA: 10 mg/m³</td>
<td>TWA: 15 mg/m³</td>
</tr>
<tr>
<td>LIMESTONE 1317-65-3</td>
<td>-</td>
<td>TWA: 15 mg/m³</td>
<td>TWA: 5 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
Respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring) of the lungs.

9. 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>powder</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>opaque</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>odorless</td>
<td></td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Property</td>
<td>Values</td>
<td>Remarks</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>No information available</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>N/A</td>
<td></td>
</tr>
<tr>
<td>Specific gravity</td>
<td>2.79211 g/cm³</td>
<td>g/cm³</td>
</tr>
<tr>
<td>Water solubility</td>
<td>Insoluble in cold water</td>
<td>No data available</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>No data available</td>
<td></td>
</tr>
<tr>
<td>Other Information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Density</td>
<td>23.23457 lbs/gal</td>
<td></td>
</tr>
<tr>
<td>Volatile organic compounds (VOC)</td>
<td>.000 lbs/gal</td>
<td></td>
</tr>
<tr>
<td>content</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total volatiles weight percent</td>
<td>.0000 %</td>
<td></td>
</tr>
<tr>
<td>Total volatiles volume percent</td>
<td>.0000 %</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
Halogenated compounds, Oxides of phosphorous

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 (CO2). Hydrocarbons.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation
Respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring) of the lungs.

Eye contact
Severely irritating to eyes. May cause irreversible damage to eyes.

Skin contact
Irritating to skin.

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>CRYSTALLINE SILICA (QUARTZ)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14808-60-7</td>
<td>= 500 mg/kg (Rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CALCIUM HYDROXIDE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1305-62-0</td>
<td>= 7340 mg/kg (Rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IRON OXIDE FUME</td>
<td>&gt; 10000 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.

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).

Sensitization
May cause sensitization of susceptible persons.

Mutagenicity
No information available.

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>CRYSTALLINE 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>IRON OXIDE FUME</td>
<td></td>
<td>Group 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1309-37-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reproductive effects
No information available.

STOT - single exposure
Skin, Eyes, Respiratory system

STOT - repeated exposure
Causes damage to organs through prolonged or repeated exposure

Target organ effects
Eyes, respiratory system, Skin, Lungs.

Aspiration hazard
No information available.

Acute Toxicity
32.99025 % of the mixture consists of ingredient(s) of unknown toxicity.

12. ECOLOGICAL INFORMATION

Ecotoxicity
Harmful to aquatic life with long lasting effects

32.26425 % of the mixture consists of components(s) of unknown hazards to the aquatic environment
Persistence and degradability
No information available.

Bioaccumulation
No information available.

Mobility in Environmental Media

Other Adverse Effects
No information available

<table>
<thead>
<tr>
<th>13. DISPOSAL CONSIDERATIONS</th>
</tr>
</thead>
</table>

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>CAWAST</th>
</tr>
</thead>
<tbody>
<tr>
<td>CALCIUM SILICATES AND ALUMINATES 65997-15-1</td>
<td>Special</td>
</tr>
<tr>
<td>CALCIUM HYDROXIDE 1305-62-0</td>
<td>Corrosive</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14. TRANSPORT INFORMATION</th>
</tr>
</thead>
</table>

DOT
Proper Shipping Name
SILICA, N.O.I.-20-P.C.F., GREATER (ITEM 176370, SUB 3)

IATA
Proper Shipping Name
Not regulated

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

<table>
<thead>
<tr>
<th>15. REGULATORY INFORMATION</th>
</tr>
</thead>
</table>

International Inventories

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></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>Does not comply</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>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
*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

United States of America

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

SARA 311/312 Hazardous
Categorization

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

CERCLA

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>CRystalline Silica (Quartz) - 14808-60-7</td>
<td>Carcinogen</td>
</tr>
</tbody>
</table>

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>Crystalline Silica (Quartz) - 14808-60-7</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Calcium Silicates and Aluminates 15997-15-1</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Calcium Hydroxide 1305-62-0</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Iron Oxide Fume 1309-37-1</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Gypsum 13397-24-5</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Magnesium Oxide 1309-48-4</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Limestone 1317-65-3</td>
<td>X</td>
<td>X</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>0</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Prepared By</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tnemec Regulatory Dept: 816-474-3400</td>
<td></td>
</tr>
</tbody>
</table>
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 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 MSDS