1. IDENTIFICATION

Product identifier
Product Code       S243-0243A
Product Name       ULTRA-TREAD V

Other means of identification
Common Name        SERIES 243, PART A

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

Details of the supplier of the safety data sheet
Manufacturer Address  Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372 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>Skin sensitization</th>
<th>Category 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germ cell mutagenicity</td>
<td>Category 1B</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Category 1B</td>
</tr>
<tr>
<td>Reproductive Toxicity</td>
<td>Category 1B</td>
</tr>
</tbody>
</table>

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>PINE OIL</td>
<td>8002-09-3</td>
<td>1 - 10%</td>
</tr>
<tr>
<td>ALKYL GLYCIDYL ETHER</td>
<td>68609-97-2</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  
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  

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

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>Slight</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td></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>Pensky Martens - Closed Cup</td>
</tr>
<tr>
<td>Flash point</td>
<td>60 °C / 140 °F</td>
<td>No data available</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 information 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></td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

S243-0243A ULTRA-TREAD V 08-Jun-2016
Other Information

Density 8.44555 lbs/gal
Volatile organic compounds (VOC) .105 lbs/gal
Total volatiles weight percent 29.8870 %
Total volatiles volume percent 30.5123 %

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>PINE OIL 8002-09-3</td>
<td>3200 mg/kg ( Rat )</td>
<td>5 g/kg ( Rabbit )</td>
<td></td>
</tr>
<tr>
<td>ALKYL GLYCIDYL ETHER 68609-97-2</td>
<td>17100 mg/kg ( Rat )</td>
<td></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

No information available

STOT - single exposure

No information available

STOT - repeated exposure

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</td>
<td>0.9 - 1.1: 48 h</td>
</tr>
<tr>
<td></td>
<td>Pseudokirchneriella subcapitata mg/L EC50 0.2 - 28.2; 72 h</td>
<td>Lepomis macrochirus mg/L LC50 static 1.0 - 10.0: 96 h</td>
<td>Daphnia magna mg/L EC50 Static 0.97: 48 h</td>
</tr>
<tr>
<td></td>
<td>Pseudokirchneriella subcapitata mg/L EC50</td>
<td>Oncorhynchus mykiss mg/L LC50 static 1.39 - 3.88: 96 h</td>
<td>Daphnia magna mg/L EC50 1.28: 48 h</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pimephales promelas mg/L LC50 flow-through 0.82: 96 h</td>
<td>Daphnia magna mg/L LC50 48 h</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Oncorhynchus mykiss mg/L LC50 flow-through 0.78: 96 h</td>
<td>Pimephales promelas mg/L LC50 static</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.9 - 1.1: 48 h</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>17 - 28: 48 h Daphnia magna mg/L EC50 Flow through</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
Disposal Methods
Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

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

<table>
<thead>
<tr>
<th>Component</th>
<th>RCRA</th>
<th>RCRA - Basis for Listing</th>
<th>RCRA - D Series Wastes</th>
<th>RCRA - U Series Wastes</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUTYL BENZYL PHTHALATE</td>
<td></td>
<td>Included in waste stream:</td>
<td>F039</td>
<td></td>
</tr>
<tr>
<td>85-68-7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14. TRANSPORT INFORMATION

DOT
Proper Shipping Name: paint, water base freezable Not regulated

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

15. REGULATORY INFORMATION

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

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

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>Acute Health Hazard</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<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>
<tr>
<td>Component</td>
<td>CWA - Reportable Quantities</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>BUTYL BENZYL PHTHALATE</td>
<td>X</td>
</tr>
<tr>
<td>85-68-7</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</td>
<td>100 lb</td>
<td>RQ 100 lb final RQ</td>
<td>RQ 45.4 kg final RQ</td>
</tr>
<tr>
<td>85-68-7</td>
<td></td>
<td></td>
<td></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</td>
<td>Developmental</td>
</tr>
<tr>
<td>85-68-7</td>
<td></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</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>85-68-7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PINOL</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8002-09-3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**16. OTHER INFORMATION**

NFPA
Health 2
Flammability 1
Instability 1
Physical hazard *

HMIS (Hazardous Material Information System)
Health 2*
Flammability 1
Reactivity 1

Prepared By Tnemec Regulatory Dept: 816-474-3400
Revision Date 08-Jun-2016
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: S243-0243B
Product Name: ULTRA-TREAD V ULTRA-TREAD V

Other means of identification
Common Name: SERIES 243 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

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

2. HAZARDS IDENTIFICATION

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

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - Inhalation (Vapors)</td>
<td>Category 4</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Category 2</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 2</td>
</tr>
<tr>
<td>Respiratory sensitization</td>
<td>Category 1</td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>Category 1</td>
</tr>
<tr>
<td>Carcinogenicity</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 2</td>
</tr>
</tbody>
</table>

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
- Suspected of causing cancer
- May cause respiratory irritation
- May cause 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
Use only outdoors or in a well-ventilated area
Wash face, hands and any exposed skin thoroughly after handling
In case of inadequate ventilation wear respiratory protection
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 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
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
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>POLYMERIC MDI</td>
<td>9016-87-9</td>
<td>30 - 60%</td>
</tr>
<tr>
<td>DIPHENYL METHANE DIISOCYANATE (MDI) REACTIVE MONOMER</td>
<td>101-68-8</td>
<td>30 - 60%</td>
</tr>
<tr>
<td>DIPHENYL METHANE DIISOCYANATE (MDI) POLYMER</td>
<td>26447-40-5</td>
<td>10 - 30%</td>
</tr>
<tr>
<td>DIPHENYL METHANE DIISOCYANATE (VOLATILE MONOMER)</td>
<td>101-68-8</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 (CO2). 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.

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. 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.

**Incompatible products**

- Water.
- Amines.
- Strong bases.
- Alcohols.
- Copper.

### 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>DIPHENYL METHANE DIISOCYANATE (MDI) REACTIVE 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>
<tr>
<td>DIPHENYL METHANE DIISOCYANATE (MDI) POLYMER 26447-40-5</td>
<td>-</td>
<td>Ceiling: 0.02 ppm Ceiling: 0.2 mg/m³</td>
<td></td>
</tr>
<tr>
<td>DIPHENYL METHANE 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>Values</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>liquid</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>clear</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Slight</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></td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>72 °C / 162 °F</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>No information available</td>
<td></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 information 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></td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor density</td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>1.23853</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>Solubility in other solvents</td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Kinematic viscosity</td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Dynamic viscosity</td>
<td>145 mPa s</td>
<td></td>
</tr>
</tbody>
</table>

Other Information

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>10.3293 lbs/gal</td>
<td>No data available</td>
</tr>
<tr>
<td>Volatile organic compounds (VOC) content</td>
<td>4.33831 lbs/gal</td>
<td>No data available</td>
</tr>
<tr>
<td>Total volatiles weight percent</td>
<td>42 %</td>
<td></td>
</tr>
<tr>
<td>Total volatiles volume percent</td>
<td>36.15 %</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
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</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLYMERIC MDI 9016-87-9</td>
<td>= 49 g/kg (Rat)</td>
<td>&gt; 9400 mg/kg (Rabbit)</td>
<td>= 490 mg/m³ (Rat) 4 h</td>
</tr>
<tr>
<td>DIPHENYLMETHANE DIISOCYANATE (MDI) REACTIVE MONOMER 101-68-8</td>
<td>= 31600 mg/kg (Rat) = 9200 mg/kg (Rat)</td>
<td>&gt; 7400 mg/kg (Rat)</td>
<td>= 369 mg/m³ (Rat) 4 h</td>
</tr>
<tr>
<td>DIPHENYLMETHANE DIISOCYANATE (MDI) POLYMER 26447-40-5</td>
<td>&gt; 7400 mg/kg (Rat)</td>
<td>&gt; 6200 mg/kg (Rabbit)</td>
<td>= 0.369 mg/L (Rat) 4 h</td>
</tr>
<tr>
<td>DIPHENYLMETHANE DIISOCYANATE (VOLATILE MONOMER) 101-68-8</td>
<td>= 31600 mg/kg (Rat) = 9200 mg/kg (Rat)</td>
<td></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**
No information available.

<table>
<thead>
<tr>
<th>Component</th>
<th>ACIGH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLYMERIC MDI 9016-87-9</td>
<td></td>
<td>Group 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIPHENYLMETHANE DIISOCYANATE (MDI) REACTIVE MONOMER 101-68-8</td>
<td></td>
<td>Group 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIPHENYLMETHANE DIISOCYANATE (MDI) POLYMER 26447-40-5</td>
<td></td>
<td>Group 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIPHENYLMETHANE DIISOCYANATE (VOLATILE MONOMER) 101-68-8</td>
<td></td>
<td>Group 3</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.
12. ECOLOGICAL INFORMATION

Ecotoxicity

48 % 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>DIPHENYL METHANE DIISOCYANATE (MDI) POLYMER 26447-40-5</td>
<td>3230: 96 h Skeletonema costatum mg/L EC50</td>
<td>1000: 24 h Daphnia magna mg/L EC50</td>
<td></td>
</tr>
</tbody>
</table>

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Mobility in Environmental Media

<table>
<thead>
<tr>
<th>Component</th>
<th>log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIPHENYL METHANE DIISOCYANATE (MDI) POLYMER 26447-40-5</td>
<td>4.5</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.

14. TRANSPORT INFORMATION

DOT
Proper Shipping Name: paint in oil Not regulated

IATA
Proper Shipping Name: Not regulated

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

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Inventory</th>
<th>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>Complies</td>
</tr>
<tr>
<td>IECSC</td>
<td>Complies</td>
</tr>
<tr>
<td>KECL</td>
<td>Complies</td>
</tr>
<tr>
<td>PIECS</td>
<td>Complies</td>
</tr>
<tr>
<td>AICS</td>
<td>Complies</td>
</tr>
</tbody>
</table>
The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

**Component**
- DIPHENYL METHANE DIISOCYANATE (MDI) REACTIVE MONOMER
- DIPHENYL METHANE DIISOCYANATE (VOLATILE 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 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>POLYMERIC MDI - 9016-87-9</td>
<td>1.0</td>
</tr>
<tr>
<td>DIPHENYL METHANE DIISOCYANATE (MDI) REACTIVE MONOMER - 101-68-8</td>
<td>1.0</td>
</tr>
<tr>
<td>DIPHENYL METHANE DIISOCYANATE (MDI) POLYMER - 26447-40-5</td>
<td>1.0</td>
</tr>
<tr>
<td>DIPHENYL METHANE DIISOCYANATE (VOLATILE MONOMER) - 101-68-8</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>DIPHENYL METHANE DIISOCYANATE (MDI) REACTIVE MONOMER - 101-68-8</td>
<td>5000 lb</td>
<td>RQ 5000 lb final RQ</td>
<td></td>
</tr>
<tr>
<td>DIPHENYL METHANE DIISOCYANATE (VOLATILE MONOMER) - 101-68-8</td>
<td>5000 lb</td>
<td>RQ 5000 lb final RQ</td>
<td></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>POLYMERIC MDI - 9016-87-9</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
16. OTHER INFORMATION

NFPA Health 3  Flammability 1  Instability 1  Physical hazard *
HMIS (Hazardous Material Information System) Health 3* Flammability 1 Reactivity 1

Prepared By Tnemec Regulatory Dept: 816-474-3400
Revision Date 12-Feb-2015
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 MSDS
1. IDENTIFICATION

Product identifier
Product Code  S243-0243C
Product Name  ULTRA-TREAD V

Other means of identification
Common Name  SERIES 243 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
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>
</tr>
</thead>
<tbody>
<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 inhaled
Causes skin irritation
Causes serious eye damage
May cause an allergic skin reaction
May cause cancer
May cause respiratory irritation. May cause drowsiness or dizziness
Causes damage to organs through prolonged or repeated exposure
Precautionary Statements

Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Use only outdoors or in a well-ventilated area
Wash face, hands and any exposed skin thoroughly after handling
Contaminated work clothing should not be allowed out of the workplace
Wear protective gloves
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
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

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
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
41.4341 % 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>CRYSALLINE SILICA (QUARTZ)</td>
<td>14808-60-7</td>
<td>30 - 60%</td>
</tr>
<tr>
<td>ALUMINUM SILICATE (TOTAL DUST)</td>
<td>1302-93-8</td>
<td>10 - 30%</td>
</tr>
<tr>
<td>CRYSALLINE SILICA (CRISTOBALITE)</td>
<td>14464-46-1</td>
<td>10 - 30%</td>
</tr>
<tr>
<td>CALCIUM HYDROXIDE</td>
<td>1305-62-0</td>
<td>1 - 10%</td>
</tr>
<tr>
<td>CALCIUM SILICATES AND ALUMINATES</td>
<td>65997-15-1</td>
<td>1 - 10%</td>
</tr>
<tr>
<td>AMORPHOUS SILICA</td>
<td>7631-86-9</td>
<td>1 - 10%</td>
</tr>
<tr>
<td>CRYSALLINE SILICA (QUARTZ)</td>
<td>14808-60-7</td>
<td>0.1 - 1%</td>
</tr>
</tbody>
</table>
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

Notes to physician
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

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

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
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 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**


---

**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>CRYSTALLINE SILICA (QUARTZ) 14808-60-7</td>
<td>TWA: 0.025 mg/m³</td>
<td>TWA: 0.1 mg/m³</td>
<td>50 mg/m³</td>
</tr>
<tr>
<td>ALUMINUM SILICATE (TOTAL DUST) 1302-93-8</td>
<td>TWA: 1 mg/m³</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>CRYSTALLINE SILICA (CRISTOBALITE) 14464-46-1</td>
<td>TWA: 0.025 mg/m³</td>
<td>TWA: 0.05 mg/m³</td>
<td>25 mg/m³</td>
</tr>
<tr>
<td>CALCIUM HYDROXIDE 1305-62-0</td>
<td>TWA: 5 mg/m³</td>
<td>TWA: 5 mg/m³</td>
<td>15 mg/m³</td>
</tr>
<tr>
<td>CALCIUM SILICATES AND ALUMINATES 65997-15-1</td>
<td>TWA: 1 mg/m³</td>
<td>TWA: 10 mg/m³</td>
<td>5000 mg/m³</td>
</tr>
<tr>
<td>AMORPHOUS SILICA 7631-86-9</td>
<td>-</td>
<td>TWA: 6 mg/m³</td>
<td>3000 mg/m³</td>
</tr>
<tr>
<td>CRYSTALLINE SILICA (QUARTZ) 14808-60-7</td>
<td>TWA: 0.025 mg/m³</td>
<td>TWA: 0.1 mg/m³</td>
<td>50 mg/m³</td>
</tr>
</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>Values</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>No information available</td>
<td></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>Melting point / freezing point</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Flash point</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 information 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>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>2.64039 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>No data available</td>
<td></td>
</tr>
</tbody>
</table>

Other Information

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>21.97203 lbs/gal</td>
</tr>
<tr>
<td>Volatile organic compounds (VOC) content</td>
<td>.0000 lbs/gal</td>
</tr>
<tr>
<td>Total volatiles weight percent</td>
<td>.0000 %</td>
</tr>
<tr>
<td>Total volatiles volume percent</td>
<td>.0000 %</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
Acids, Ammonia, Aluminum, Oxides of phosphorous

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**
Severely irritating to eyes. May cause irreversible damage to eyes.

**Skin contact**
Contact causes severe skin irritation and possible burns. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

**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) 14808-60-7</td>
<td>500 mg/kg (Rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CALCIUM HYDROXIDE 1305-62-0</td>
<td>7340 mg/kg (Rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AMORPHOUS SILICA 7631-86-9</td>
<td>&gt; 5000 mg/kg (Rat)</td>
<td>&gt; 2000 mg/kg (Rabbit)</td>
<td>&gt; 2.2 mg/L (Rat) 1 h</td>
</tr>
<tr>
<td>CRYSTALLINE SILICA (QUARTZ) 14808-60-7</td>
<td>500 mg/kg (Rat)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Information on toxicological effects

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

**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) 14808-60-7</td>
<td>A2</td>
<td>Group 1</td>
<td>Known</td>
<td>X</td>
</tr>
<tr>
<td>CRYSTALLINE SILICA (CRISTOBALITE) 14464-46-1</td>
<td>A2</td>
<td>Group 1</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>AMORPHOUS SILICA 7631-86-9</td>
<td></td>
<td>Group 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRYSTALLINE SILICA (QUARTZ) 14808-60-7</td>
<td>A2</td>
<td>Group 1</td>
<td>Known</td>
<td>X</td>
</tr>
</tbody>
</table>

**Reproductive effects**
No information available.

**STOT - single exposure**
Skin, Eyes, Lungs

**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**
41.4341 % of the mixture consists of ingredient(s) of unknown toxicity.
12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life with long lasting effects

75.8625 % 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>CALCIUM HYDROXIDE 1305-62-0</td>
<td>160: 96 h Gambusia affinis mg/L LC50 static</td>
<td></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 Brachydanio rerio 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

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.

California Hazardous Waste Status

This product contains one or more substances that are listed with the State of California as a hazardous waste

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

14. TRANSPORT INFORMATION

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.

15. REGULATORY INFORMATION

International Inventories

TSCA

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

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></th>
<th>Acute Health Hazard</th>
<th>Chronic Health Hazard</th>
<th>Fire Hazard</th>
<th>Sudden Release of Pressure Hazard</th>
<th>Reactive Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</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>CRYSALLINE SILICA (QUARTZ) - 14808-60-7</td>
<td>Carcinogen</td>
</tr>
<tr>
<td>CRYSALLINE 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>CRYSALLINE SILICA (QUARTZ) 14808-60-7</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>CRYSALLINE SILICA (CRISTOBALITE) 14464-46-1</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>CALCIUM SILICATES AND ALUMINATES 65997-15-1</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>AMORPHOUS SILICA 7631-86-9</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
CRYSTALLINE SILICA (QUARTZ)  
14808-60-7

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>0</td>
<td>*</td>
</tr>
</tbody>
</table>

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

Prepared By
Tnemec Regulatory Dept: 816-474-3400
Revision Date 30-Jul-2015
Revision Summary 9 4 5 7 10 8 11 14 15

Disclaimer
For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.

To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of SDS
1. IDENTIFICATION

Product identifier
Product Code S244-00BGD
Product Name ULTRA-TREAD BEIGE

Other means of identification
Common Name SERIES 243/244/245, PART D

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

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

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

2. HAZARDS IDENTIFICATION

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

<table>
<thead>
<tr>
<th>Hazard Type</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - Oral</td>
<td>Category 4</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Category 2</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 2B</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Category 2</td>
</tr>
<tr>
<td>Specific target organ toxicity (single exposure)</td>
<td>Category 3</td>
</tr>
</tbody>
</table>

Label elements

EMERGENCY OVERVIEW

WARNING
Hazard statements
Harmful if swallowed
Causes skin irritation
Causes eye irritation
Suspected of causing cancer
May cause respiratory irritation. May cause drowsiness or dizziness

Appearance opaque Physical state No information available Odor No information available

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
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area

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

Storage
Keep away from children

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

Hazards not otherwise classified (HNOC)

Other information
Harmful to aquatic life with long lasting effects
SEE SAFETY DATA SHEET

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>IRON OXIDE FUME</td>
<td>1309-37-1</td>
<td>60 - 100%</td>
</tr>
<tr>
<td>COBALT ALUMINATE BLUE SPINEL</td>
<td>1345-16-0</td>
<td>60 - 100%</td>
</tr>
<tr>
<td>CHROMIC (III) OXIDE</td>
<td>1308-38-9</td>
<td>60 - 100%</td>
</tr>
<tr>
<td>TITANIUM DIOXIDE (TOTAL DUST)</td>
<td>13463-67-7</td>
<td>60 - 100%</td>
</tr>
<tr>
<td>TITANIUM DIOXIDE (TOTAL DUST)</td>
<td>13463-67-7</td>
<td>60 - 100%</td>
</tr>
<tr>
<td>IRON OXIDE FUME</td>
<td>1309-37-1</td>
<td>1 - 10%</td>
</tr>
<tr>
<td>AMORPHOUS SILICA</td>
<td>7631-86-9</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
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
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion
If swallowed, do not induce vomiting. Get medical attention immediately.
Self-protection of the first aider
Use personal protective equipment. Avoid contact with eyes, skin and clothing.

Most important symptoms and effects, both acute and delayed

Notes to physician
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
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
No information available

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
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
Ensure adequate ventilation. Avoid contact with skin and eyes. 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
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
Pick up and transfer to properly labelled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling
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/dust. Ensure adequate ventilation. Do not ingest. Do not eat, drink or smoke when using this product. 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

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>IRON OXIDE FUME 1309-37-1</td>
<td>TWA: 5 mg/m³ TWA: 10 mg/m³ TWA: 5 mg/m³ TWA: 15 mg/m³</td>
<td>2500 mg/m³</td>
<td></td>
</tr>
<tr>
<td>COBALT ALUMINATE BLUE SPINEL 1345-16-0</td>
<td>TWA: 0.02 mg/m³ TWA: 1 mg/m³</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>CHROMIC (III) OXIDE 1308-38-9</td>
<td>TWA: 0.5 mg/m³</td>
<td>-</td>
<td>25 mg/m³</td>
</tr>
<tr>
<td>TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7</td>
<td>TWA: 10 mg/m³ TWA: 10 mg/m³ TWA: 15 mg/m³</td>
<td>5000 mg/m³</td>
<td></td>
</tr>
<tr>
<td>TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7</td>
<td>TWA: 10 mg/m³ TWA: 10 mg/m³ TWA: 15 mg/m³</td>
<td>5000 mg/m³</td>
<td></td>
</tr>
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<td>2500 mg/m³</td>
<td></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.

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>No information available</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>pH</td>
<td></td>
<td>No data 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**
Metals, Aluminum, Zinc, calcium

**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**
  Severely 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>IRON OXIDE FUME 1309-37-1</td>
<td>&gt; 10000 mg/kg (Rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHROMIC (III) OXIDE 1308-38-9</td>
<td>&gt;5000</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

Sensitization  No information available.
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>IRON OXIDE FUME 1309-37-1</td>
<td></td>
<td>Group 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COBALT ALUMINATE BLUE SPINEL 1345-16-0</td>
<td>A3</td>
<td>Group 2B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHROMIC (III) OXIDE 1308-38-9</td>
<td></td>
<td>Group 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7</td>
<td>Group 2B</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7</td>
<td>Group 2B</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IRON OXIDE FUME 1309-37-1</td>
<td></td>
<td>Group 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AMORPHOUS SILICA 7631-86-9</td>
<td>Group 3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reproductive effects  No information available.
STOT - single exposure  No information available
STOT - repeated exposure  Causes damage to organs through prolonged or repeated exposure
Target organ effects  Eyes, respiratory system, Skin.
Aspiration hazard  No information available.

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
601% 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>AMORPHOUS SILICA 7631-86-9</td>
<td>440: 72 h Pseudokirchneriella subcapitata mg/L EC50</td>
<td>5000: 96 h Brachydanio rerio 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
Other Adverse Effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal Methods
It must undergo special treatment, e.g. at suitable disposal site, to comply with local 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>COBALT ALUMINATE BLUE SPINEL</td>
<td>Toxic</td>
</tr>
<tr>
<td>1345-16-0</td>
<td></td>
</tr>
<tr>
<td>CHROMIC (III) OXIDE</td>
<td>Toxic</td>
</tr>
<tr>
<td>1308-38-9</td>
<td>Corrosive</td>
</tr>
<tr>
<td></td>
<td>Ignitable</td>
</tr>
</tbody>
</table>

14. TRANSPORT INFORMATION

DOT
Proper Shipping Name
Paint related material

IATA
Proper Shipping Name
Not regulated

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

15. REGULATORY INFORMATION

International Inventories
TSCA Complies
DSL/NDSL Complies
EINECS/ELINCS Complies
ENCS Complies
IECSC Complies
KECL Complies
PICCS Complies
AICS Complies

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

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):
Component HAPS Data
COBALT ALUMINATE BLUE SPINEL
CHROMIC (III) OXIDE

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>COBALT ALUMINATE BLUE SPINEL</td>
<td>1345-16-0</td>
</tr>
<tr>
<td>CHROMIC (III) OXIDE</td>
<td>1308-38-9</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazardous

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

<table>
<thead>
<tr>
<th>Component</th>
<th>CWA - Reportable Quantities</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
<th>CWA - Hazardous Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHROMIC (III) OXIDE</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1308-38-9</td>
<td></td>
<td></td>
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<td></td>
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</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>TITANIUM DIOXIDE (TOTAL DUST)</td>
<td>Carcinogen</td>
</tr>
<tr>
<td>13463-67-7</td>
<td></td>
</tr>
<tr>
<td>TITANIUM DIOXIDE (TOTAL DUST)</td>
<td>Carcinogen</td>
</tr>
<tr>
<td>13463-67-7</td>
<td></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>IRON OXIDE FUME</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>1309-37-1</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>COBALT ALUMINATE BLUE SPINEL</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>1345-16-0</td>
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<td></td>
</tr>
<tr>
<td>CHROMIC (III) OXIDE</td>
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<td>X</td>
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<td>7631-86-9</td>
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</tbody>
</table>

16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health</th>
<th>Flammability</th>
<th>Instability</th>
<th>Physical hazard</th>
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</thead>
<tbody>
<tr>
<td>HMIS</td>
<td>Health</td>
<td>Flammability</td>
<td>Reactivity</td>
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</tr>
<tr>
<td>System</td>
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<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2*</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>
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 SDS