SECTION 1. IDENTIFICATION

Product name : STORM GUARD 920 WHITE
Product code : 000000000004130957

Manufacturer or supplier’s details
Company name of supplier : Red Devil, Inc.
Address : 4175 Webb Street
Pryor, OK 74361
Telephone : (918) 825-5744
Emergency telephone : INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

Recommended use of the chemical and restrictions on use
Recommended use : Adhesive, binding agents

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200
Eye irritation : Category 2A
Skin sensitization : Category 1
Reproductive toxicity : Category 2
Specific target organ systemic toxicity - repeated exposure (Oral) : Category 2 (Blood)

GHS label elements
Hazard pictograms : [Images of hazard symbols]
Signal Word : Warning
Hazard Statements : H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H361d Suspected of damaging the unborn child.
H373 May cause damage to organs (Blood) through prolonged or repeated exposure if swallowed.

Precautionary Statements : Prevention:
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.
P264 Wash skin thoroughly after handling.
P272 Contaminated work clothing must not be allowed out of the workplace.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P333 + P313 IF skin irritation or rash occurs: Get medical advice/ attention.
P337 + P313 IF eye irritation persists: Get medical advice/ attention.
P363 Wash contaminated clothing before reuse.

Storage:
P405 Store locked up.

Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture
Chemical nature : Silicone elastomer

Hazardous ingredients

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration ( % w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silicon dioxide</td>
<td>7631-86-9</td>
<td>&gt;= 10 - &lt; 20</td>
</tr>
<tr>
<td>Methyltri(ethylmethylketoxime)silane</td>
<td>22984-54-9</td>
<td>&gt;= 1 - &lt; 5</td>
</tr>
<tr>
<td>Vinyltri (methylketoxime) silane</td>
<td>2224-33-1</td>
<td>&gt;= 1 - &lt; 5</td>
</tr>
<tr>
<td>N-(3-(Trimethoxysilyl)propyl)ethylenediamine</td>
<td>1760-24-3</td>
<td>&gt;= 0.1 - &lt; 1</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>13463-67-7</td>
<td>&gt;= 0.1 - &lt; 1</td>
</tr>
<tr>
<td>Methyltri(ethylmethylketoxime)silane isomers and oligomers</td>
<td>Not Assigned</td>
<td>&gt;= 0.1 - &lt; 1</td>
</tr>
<tr>
<td>Dimethylbis[(1-oxo-octyl)oxy]stannane</td>
<td>68928-76-7</td>
<td>&gt;= 0.1 - &lt; 1</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES
General advice: In the case of accident or if you feel unwell, seek medical advice immediately. When symptoms persist or in all cases of doubt seek medical advice.

If inhaled: If inhaled, remove to fresh air. Get medical attention.

In case of skin contact: In case of contact, immediately flush skin with soap and plenty of water. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

In case of eye contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lens, if worn. Get medical attention.

If swallowed: If swallowed, DO NOT induce vomiting. Get medical attention. Rinse mouth thoroughly with water.

Most important symptoms and effects, both acute and delayed: May cause an allergic skin reaction. Causes serious eye irritation. Suspected of damaging the unborn child. May cause damage to organs through prolonged or repeated exposure if swallowed.

Protection of first-aiders: First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists.

Notes to physician: Treat symptomatically and supportively.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Water spray
Alcohol-resistant foam
Carbon dioxide (CO2)
Dry chemical

Unsuitable extinguishing media: None known.

Specific hazards during fire fighting: Exposure to combustion products may be a hazard to health.

Hazardous combustion products: Carbon oxides
Silicon oxides
Formaldehyde
Nitrogen oxides (NOx)
**SAFETY DATA SHEET**

**STORM GUARD 920 WHITE**

<table>
<thead>
<tr>
<th>Version</th>
<th>Revision Date</th>
<th>SDS Number</th>
<th>Date of last issue</th>
<th>Date of first issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>11/13/2016</td>
<td>4146690-00002</td>
<td>07/05/2016</td>
<td>07/05/2016</td>
</tr>
</tbody>
</table>

Specific extinguishing methods:

- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Use water spray to cool unopened containers.
- Remove undamaged containers from fire area if it is safe to do so.
- Evacuate area.

Special protective equipment for fire-fighters:

- In the event of fire, wear self-contained breathing apparatus.
- Use personal protective equipment.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

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

- Use personal protective equipment.
- Follow safe handling advice and personal protective equipment recommendations.

**Environmental precautions**:

- Discharge into the environment must be avoided.
- Prevent further leakage or spillage if safe to do so.
- Retain and dispose of contaminated wash water.
- Local authorities should be advised if significant spillages cannot be contained.

**Methods and materials for containment and cleaning up**:

- Soak up with inert absorbent material.
- For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container.
- Clean up remaining materials from spill with suitable absorbent.
- Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.
- Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

### SECTION 7. HANDLING AND STORAGE

**Technical measures**:

- See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

**Local/Total ventilation**:

- Use only with adequate ventilation.

**Advice on safe handling**:

- Do not get on skin or clothing.
- Do not swallow.
- Do not get in eyes.
- Handle in accordance with good industrial hygiene and safety practice.
- Keep away from water.
- Protect from moisture.
- Take care to prevent spills, waste and minimize release to the

4 / 23
interest.

Conditions for safe storage: Keep in properly labeled containers. Store in accordance with the particular national regulations.

Materials to avoid: Do not store with the following product types: Strong oxidizing agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silicon dioxide</td>
<td>7631-86-9</td>
<td>TWA (Dust)</td>
<td>20 Million particles per cubic foot (Silica)</td>
<td>OSHA Z-3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Dust)</td>
<td>80 mg/m³ / %SiO₂ (Silica)</td>
<td>OSHA Z-3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>6 mg/m³ (Silica)</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>13463-67-7</td>
<td>TWA (total dust)</td>
<td>15 mg/m³</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>10 mg/m³ (Titanium dioxide)</td>
<td>ACGIH</td>
</tr>
<tr>
<td>Dimethylbis[1-oxoneodecyl]oxy]stannane</td>
<td>68928-76-7</td>
<td>TWA</td>
<td>0.1 mg/m³ (Tin)</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>0.1 mg/m³ (Tin)</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>0.2 mg/m³ (Tin)</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>0.1 mg/m³ (Tin)</td>
<td>NIOSH REL</td>
</tr>
</tbody>
</table>

Hazardous components without workplace control parameters

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methyltri(ethylmethylketoxime)silane</td>
<td>22984-54-9</td>
</tr>
<tr>
<td>Vinyltri (methylthylketoxime)silane</td>
<td>2224-33-1</td>
</tr>
<tr>
<td>N-(3-[(Trimethoxysilyl)propyl]ethylenediamine</td>
<td>1760-24-3</td>
</tr>
<tr>
<td>Methyltri(ethylmethylketoxime)silane isomers and oligomers</td>
<td>Not Assigned</td>
</tr>
</tbody>
</table>

These substance(s) are inextricably bound in the product and therefore do not contribute to a dust inhalation hazard.
Silicon dioxide
Titanium dioxide

Occupational exposure limits of decomposition products

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl methyl ketoxime</td>
<td>96-29-7</td>
<td>TWA</td>
<td>10 ppm</td>
<td>US WEEL</td>
</tr>
</tbody>
</table>

Engineering measures: Processing may form hazardous compounds (see section 10). Ensure adequate ventilation, especially in confined areas. Minimize workplace exposure concentrations.

Personal protective equipment

Respiratory protection: General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection

Material: Chemical-resistant gloves

Remarks: Choose gloves to protect hands against chemicals depending on the concentration specific to place of work. Breakthrough time is not determined for the product. Change gloves often! For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.

Eye protection: Wear the following personal protective equipment:
Safety goggles

Skin and body protection: Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential. Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).

Hygiene measures: Ensure that eye flushing systems and safety showers are located close to the working place.
When using do not eat, drink or smoke. Wash contaminated clothing before re-use. These precautions are for room temperature handling. Use at elevated temperature or aerosol/spray applications may require added precautions.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : paste
Color : white
Odor : slight
Odor Threshold : No data available
pH : Not applicable
Melting point/freezing point : No data available
Initial boiling point and boiling range : Not applicable
Flash point : Not applicable
Evaporation rate : Not applicable
Flammability (solid, gas) : Not classified as a flammability hazard
Self-ignition : The substance or mixture is not classified as pyrophoric. The substance or mixture is not classified as self heating.
Upper explosion limit : No data available
Lower explosion limit : No data available
Vapor pressure : Not applicable
Relative vapor density : No data available
Relative density : 1.04
Solubility(ies)
   Water solubility : No data available
Partition coefficient: n-octanol/water : No data available
Autoignition temperature : No data available
Decomposition temperature : No data available
SAFETY DATA SHEET
STORM GUARD 920 WHITE

Viscosity
Viscosity, dynamic : Not applicable

Explosive properties : Not explosive

Oxidizing properties : The substance or mixture is not classified as oxidizing.

Molecular weight : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not classified as a reactivity hazard.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions
Use at elevated temperatures may form highly hazardous compounds. Can react with strong oxidizing agents. Hazardous decomposition products will be formed upon contact with water or humid air. Hazardous decomposition products will be formed at elevated temperatures.

Conditions to avoid : Exposure to moisture.

Incompatible materials : Oxidizing agents Water

Hazardous decomposition products
Contact with water or humid air : Ethyl methyl ketoxime

Thermal decomposition : Formaldehyde

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure
Skin contact
Ingestion
Eye contact

Acute toxicity
Not classified based on available information.

Ingredients:

Silicon dioxide:
Acute oral toxicity : LD50 (Rat): > 3,300 mg/kg
Assessment: The substance or mixture has no acute oral toxicity Remarks: Information taken from reference works and the
Acute inhalation toxicity: LC50 (Rat): > 2.08 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: Information taken from reference works and the literature.

Acute dermal toxicity: LD50 (Rabbit): > 5,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity
Remarks: Information taken from reference works and the literature.

Methyltri(ethylmethylketoxime) silane:
Acute oral toxicity: LD50 (Rat): > 2,520 mg/kg
Assessment: The substance or mixture has no acute oral toxicity
Remarks: On basis of test data.

Vinyltri (methylethylketoxime) silane:
Acute oral toxicity: LD50 (Rat): > 2,000 mg/kg
Assessment: The substance or mixture has no acute oral toxicity
Remarks: On basis of test data.

Acute dermal toxicity: LD50 (Rat): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity
Remarks: On basis of test data.

N-(3-(Trimethoxysilyl)propyl)ethylenediamine:
Acute oral toxicity: LD50 (Rat): 2,295 mg/kg
Remarks: On basis of test data.

Acute inhalation toxicity: LC50 (Rat): > 1.49 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Remarks: On basis of test data.

Acute dermal toxicity: LD50 (Rabbit): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity
Remarks: On basis of test data.

Titanium dioxide:
Acute oral toxicity: LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity: LC50 (Rat): > 6.82 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity

**Dimethylbis[(1-oxoneodecyl)oxy]stannane:**
- Acute oral toxicity: LD₅₀ (Rat): 894 mg/kg
  Method: OECD Test Guideline 401
- Acute dermal toxicity: LD₅₀ (Rat): > 2,000 mg/kg
  Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity

**Skin corrosion/irritation**
Not classified based on available information.

**Ingredients:**

**Silicon dioxide:**
Result: No skin irritation
Remarks: Information taken from reference works and the literature.

**Methyltri(ethylmethyketoxime)silane:**
Species: Rabbit
Result: No skin irritation
Remarks: Based on data from similar materials

**N-(3-(Trimethoxysilyl)propyl)ethylenediamine:**
Species: Rabbit
Result: Mild skin irritation
Remarks: On basis of test data.

**Titanium dioxide:**
Species: Rabbit
Result: No skin irritation

**Dimethylbis[(1-oxoneodecyl)oxy]stannane:**
Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation

**Serious eye damage/eye irritation**
Causes serious eye irritation.

**Ingredients:**

**Silicon dioxide:**
Result: No eye irritation
SAFETY DATA SHEET

STORM GUARD 920 WHITE

Remarks: Information taken from reference works and the literature.

**Methyltri(ethylmethylethylketoxime)silane:**
Species: Rabbit
Result: Irritation to eyes, reversing within 7 days
Remarks: On basis of test data.

**Vinyltri (methylethylketoxime) silane:**
Species: Rabbit
Result: Irreversible effects on the eye
Remarks: On basis of test data.

**N-(3-(Trimethoxysilyl)propyl)ethylenediamine:**
Species: Rabbit
Result: Irreversible effects on the eye
Remarks: On basis of test data.

**Titanium dioxide:**
Species: Rabbit
Result: No eye irritation

**Methyltri(ethylmethylethylketoxime)silane isomers and oligomers:**
Species: Rabbit
Result: Irritation to eyes, reversing within 7 days
Remarks: Based on data from similar materials

**Dimethylbis[(1-oxoneodecyl)oxy]stannane:**
Species: Rabbit
Result: No eye irritation
Method: OECD Test Guideline 405

**Respiratory or skin sensitization**

**Skin sensitization**
May cause an allergic skin reaction.

**Respiratory sensitization**
Not classified based on available information.

**Ingredients:**

**Silicon dioxide:**
Assessment: Does not cause skin sensitization.

Test Type: Skin: test type not specified
Species: Guinea pig
Result: negative
Remarks: Information taken from reference works and the literature.
Methyltri(ethylmethylketoxime)silane:
Assessment: Probability or evidence of skin sensitization in humans
Test Type: Maximization Test
Species: Guinea pig
Remarks: On basis of test data.

Vinyltri (methylethylketoxime) silane:
Assessment: Probability or evidence of skin sensitization in humans
Test Type: Maximization Test
Species: Guinea pig
Remarks: Based on data from similar materials

N-(3-(Trimethoxysilyl)propyl)ethylenediamine:
Assessment: Probability or evidence of skin sensitization in humans
Test Type: Maximization Test
Species: Guinea pig
Remarks: Information taken from reference works and the literature.

Titanium dioxide:
Test Type: Local lymph node assay (LLNA)
Routes of exposure: Skin contact
Species: Mouse
Result: negative

Methyltri(ethylmethylketoxime)silane isomers and oligomers:
Assessment: Probability or evidence of skin sensitization in humans
Test Type: Maximization Test
Species: Guinea pig
Remarks: Based on data from similar materials

Germ cell mutagenicity
Not classified based on available information.

Ingredients:

Silicon dioxide:
Genotoxicity in vitro : Result: negative
Remarks: Information taken from reference works and the literature.

Genotoxicity in vivo : Application Route: Ingestion
Result: negative
Remarks: Information taken from reference works and the literature.

Germ cell mutagenicity - : Animal testing did not show any mutagenic effects.
Assessment

**Methyltri(ethylmethylketoxime)silane:**
Genotoxicity in vitro: Test Type: Mutagenicity (in vitro mammalian cytogenetic test) Result: negative
Remarks: On basis of test data.

**Vinyltri (methylethylketoxime) silane:**
Genotoxicity in vitro: Test Type: Bacterial reverse mutation assay (AMES) Result: negative
Remarks: On basis of test data.
Genotoxicity in vivo: Test Type: In vivo micronucleus test Species: Mouse Application Route: Intraperitoneal injection Result: negative
Remarks: On basis of test data.

Germ cell mutagenicity - Assessment: Animal testing did not show any mutagenic effects.

**Titanium dioxide:**
Genotoxicity in vitro: Test Type: Bacterial reverse mutation assay (AMES) Result: negative

Genotoxicity in vivo: Test Type: In vivo micronucleus test Species: Mouse Result: negative

**Dimethylbis[(1-oxoneodecyl)oxy]stannane:**
Genotoxicity in vitro: Test Type: Bacterial reverse mutation assay (AMES) Method: OECD Test Guideline 471 Result: negative

**Carcinogenicity**
Not classified based on available information.

**Ingredients:**

**Titanium dioxide:**
Species: Rat Application Route: inhalation (dust/mist/fume) Exposure time: 24 Months Method: OECD Test Guideline 453 Result: positive Remarks: The mechanism or mode of action may not be relevant in humans. These substance(s) are inextricably bound in the product and therefore do not contribute to a dust inhalation hazard.
Carcinogenicity - Assess- Limited evidence of carcinogenicity in inhalation studies with
**Reproductive toxicity**
Suspected of damaging the unborn child.

**Ingredients:**

**Methyltri(ethylmethylketoxime)silane:**

Effects on fertility:
- Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
- Species: Rat, male and female
- Application Route: Ingestion
- Symptoms: No effects on fertility.
- Remarks: On basis of test data.

Effects on fetal development:
- Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
- Species: Rat, male and female
- Application Route: Ingestion
- Symptoms: No effects on fetal development.
- Remarks: On basis of test data.

Reproductive toxicity - Assessment:
- No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments.

**N-(3-(Trimethoxysilyl)propyl)ethylenediamine:**

Effects on fertility:
- Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
- Application Route: Ingestion
- Symptoms: No effects on fertility.
- Remarks: On basis of test data.

Effects on fetal development:
- Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
- Application Route: Ingestion
- Symptoms: No effects on fetal development.
- Remarks: On basis of test data.

Reproductive toxicity - Assessment:
- No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments.
Dimethylbis[(1-oxoneodecyl)oxy]stannane:
Reproductive toxicity - Assessment: Some evidence of adverse effects on development, based on animal experiments.

STOT-single exposure
Not classified based on available information.

STOT-repeated exposure
May cause damage to organs (Blood) through prolonged or repeated exposure if swallowed.

Ingredients:

Methyltri(ethylmethylketoctoxime)silane:
Routes of exposure: Ingestion
Target Organs: Blood
Assessment: Shown to produce significant health effects in animals at concentrations of >10 to 100 mg/kg bw.

Vinyltri (methylethylketoxime) silane:
Routes of exposure: Ingestion
Target Organs: Blood
Assessment: Shown to produce significant health effects in animals at concentrations of >10 to 100 mg/kg bw.

N-(3-(Trimethoxyxil)propyl)ethylenediamine:
Routes of exposure: Ingestion
Assessment: No significant health effects observed in animals at concentrations of 100 mg/kg bw or less.

Methyltri(ethylmethylketoxime)silane isomers and oligomers:
Routes of exposure: Ingestion
Target Organs: Blood
Assessment: Shown to produce significant health effects in animals at concentrations of >10 to 100 mg/kg bw.

Dimethylbis[(1-oxoneodecyl)oxy]stannane:
Routes of exposure: Ingestion
Target Organs: Immune system, Central nervous system
Assessment: Shown to produce significant health effects in animals at concentrations of 10 mg/kg bw or less.

Repeated dose toxicity

Ingredients:

Methyltri(ethylmethylketoxime)silane:
Species: Rat
Application Route: Ingestion
Target Organs: Blood
Remarks: On basis of test data.
Vinyltri (methylethylketoxime) silane:
Species: Rat
Application Route: Ingestion
Target Organs: Blood
Remarks: Based on data from similar materials

N-(3-(Trimethoxysilyl)propyl)ethylenediamine:
Application Route: Ingestion
Remarks: On basis of test data.

Titanium dioxide:
Species: Rat
NOAEL: 24,000 mg/kg
Application Route: Ingestion
Exposure time: 28 Days

Species: Rat
NOAEL: 10 mg/m³
Application Route: inhalation (dust/mist/fume)
Exposure time: 2 y
Remarks: These substance(s) are inextricably bound in the product and therefore do not contribute to a dust inhalation hazard.

Methyltri(ethylmethyketoxime)silane isomers and oligomers:
Species: Rat
Application Route: Ingestion
Target Organs: Blood
Remarks: Based on data from similar materials

Dimethylbis[(1-oxoneodecyl)oxy]stannane:
Species: Rat
NOAEL: < 1.6 mg/kg
Application Route: Ingestion
Exposure time: 90 Days
Remarks: Based on data from similar materials

Aspiration toxicity
Not classified based on available information.

Further information

Product:
Remarks: During use of the material, small amounts of methylethylketoxime (MEKO) will be released. Rodents exposed to chronic MEKO inhalation throughout their lifetimes showed significant increases in liver tumor rates.
SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Ingredients:

**Methyltri(ethylmethylketoxime)silane:**

Toxicity to fish:
- LC50 (Oncorhynchus mykiss (rainbow trout)): > 120 mg/l
  - Exposure time: 96 h
  - Method: OECD Test Guideline 203
  - Remarks: Based on data from similar materials

Ecotoxicology Assessment

Acute aquatic toxicity: This product has no known ecotoxicological effects.

**Vinyltri (methylmethylketoxime) silane:**

Toxicity to fish:
- LC50 (Oncorhynchus mykiss (rainbow trout)): > 120 mg/l
  - Exposure time: 96 h
  - Method: OECD Test Guideline 203
- LC50 (Oryzias latipes (Orange-red killifish)): > 100 mg/l
  - Exposure time: 96 h
  - Method: OECD Test Guideline 203

**N-(3-(Trimethoxysilyl)propyl)ethylenediamine:**

Toxicity to fish:
- LC50 (Danio rerio (zebra fish)): 597 mg/l
  - Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates:
- EC50 (Daphnia sp. (Water flea)): 81 mg/l
  - Exposure time: 48 h

Toxicity to algae:
- ErC50 (Selenastrum capricornutum (green algae)): 8.8 mg/l
  - Exposure time: 72 h
  - Method: OECD Test Guideline 201
- NOEC (Selenastrum capricornutum (green algae)): 3.1 mg/l
  - Exposure time: 72 h
  - Method: OECD Test Guideline 201
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):

- NOEC (Daphnia sp. (Water flea)): > 1 mg/l
- Exposure time: 21 d

Toxicity to microorganisms:

- EC50 (Pseudomonas putida): 67 mg/l
- Exposure time: 16 h
- Method: DIN 38 412 Part 8

Titanium dioxide:

- LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l
- Exposure time: 96 h
- Method: OECD Test Guideline 203

- EC50 (Daphnia magna (Water flea)): > 100 mg/l
- Exposure time: 48 h

- EC50 (Skeletonema costatum (marine diatom)): > 10,000 mg/l
- Exposure time: 72 h

- EC50: > 1,000 mg/l
- Exposure time: 3 h
- Method: OECD Test Guideline 209

Dimethylbis[(1-oxoneodecyloxy)stannane]:

- LC50 (Danio rerio (zebra fish)): > 100 mg/l
- Exposure time: 96 h
- Method: OECD Test Guideline 203
- Remarks: Based on data from similar materials

- EC50 (Daphnia magna (Water flea)): 17 mg/l
- Exposure time: 48 h
- Method: OECD Test Guideline 202
- Remarks: Based on data from similar materials

- ErC50 (Desmodesmus subspicatus (green algae)): 37 mg/l
- Exposure time: 72 h
- Method: OECD Test Guideline 201
- Remarks: Based on data from similar materials

- EC10 (Desmodesmus subspicatus (green algae)): 5.7 mg/l
- Exposure time: 72 h
- Method: OECD Test Guideline 201
- Remarks: Based on data from similar materials

Persistence and degradability

**Ingredients:**

**Methyltri(ethymethylketoxime)silane:**

- Biodegradability: Result: Not readily biodegradable.
- Biodegradation: 14.5 %
- Exposure time: 21 d
Vinyltri (methylethylketoxime) silane:
Biodegradability: Result: Not readily biodegradable.
Biodegradation: 0 %
Exposure time: 28 d
Method: OECD Test Guideline 301A

Stability in water: Degradation half life: < 1 min (2 °C)
Method: OECD Test Guideline 111

N-(3-(Trimethoxysilyl)propyl)ethylenediamine:
Biodegradability: Result: Not readily biodegradable.
Biodegradation: 39 %
Method: OECD Test Guideline 301A

Stability in water: Degradation half life: 0.025 h (24.7 °C) pH: 7
Method: OECD Test Guideline 111

Dimethylbis[(1-oxoneodecyl)oxy]stannane:
Biodegradability: Result: Not readily biodegradable.
Biodegradation: 3 %
Exposure time: 35 d
Method: OECD Test Guideline 301F
Remarks: Based on data from similar materials

Bioaccumulative potential

Ingredients:

Methyltri(ethylmethylethylketoxime)silane:
Partition coefficient: n-octanol/water
log Pow: 11.2

N-(3-(Trimethoxysilyl)propyl)ethylenediamine:
Partition coefficient: n-octanol/water
log Pow: -0.3

Mobility in soil
No data available

Other adverse effects
No data available
SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

- Resource Conservation and Recovery Act (RCRA): This product has been evaluated for RCRA characteristics and does not meet the criteria of hazardous waste if discarded in its purchased form.

- Waste from residues: Dispose of in accordance with local regulations.

- Contaminated packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal. If not otherwise specified: Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

International Regulations

- UNRTDG: Not regulated as a dangerous good

- IATA-DGR: Not regulated as a dangerous good

- IMDG-Code: Not regulated as a dangerous good

- Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable for product as supplied.

Domestic regulation

- 49 CFR: Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS-No.</th>
<th>Component RQ (lbs)</th>
<th>Calculated product RQ (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-Hexane</td>
<td>110-54-3</td>
<td>5000</td>
<td>*</td>
</tr>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>5000</td>
<td>*</td>
</tr>
<tr>
<td>Ethylenediamine</td>
<td>107-15-3</td>
<td>5000</td>
<td>*</td>
</tr>
</tbody>
</table>

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS-No.</th>
<th>Component RQ (lbs)</th>
<th>Calculated product RQ (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylenediamine</td>
<td>107-15-3</td>
<td>5000</td>
<td>*</td>
</tr>
</tbody>
</table>

*: Calculated RQ exceeds reasonably attainable upper limit.
SARA 302 Extremely Hazardous Substances Threshold Planning Quantity
This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards
- Acute Health Hazard
- Chronic Health Hazard

SARA 313
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

Pennsylvania Right To Know
- Dimethyl siloxane, hydroxy-terminated: 70131-67-8
- Silicon dioxide: 7631-86-9
- Methyltri(ethylmethylketo)xime)silane: 22984-54-9

California Prop. 65 Warning: This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.
- Methanol: 67-56-1

California List of Hazardous Substances
- Silicon dioxide: 7631-86-9

California Permissible Exposure Limits for Chemical Contaminants
- Silicon dioxide: 7631-86-9

The ingredients of this product are reported in the following inventories:

TSCA
- All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.

AICS
- All ingredients listed or exempt.

IECSC
- All ingredients listed or exempt.

PICCS
- All ingredients listed or exempt.

DSL
- All chemical substances in this product comply with the CEPA 1999 and NSNR and are on or exempt from listing on the Canadian Domestic Substances List (DSL).

REACH
- For purchases from Dow Corning EU legal entities, all ingredients are currently pre/registered or exempt under REACH. Please refer to section 1 for recommended uses. For purchases from non-EU Dow Corning legal entities with the intention to export into EEA please contact your DC representative/local office.

TCSI
- All ingredients listed or exempt.
### SECTION 16. OTHER INFORMATION

**Further information**

**NFPA:**

- **Health:**
  - 1
  - 2
  - 0

- **Flammability:**
  - 1

- **Instability:**
  - 0

**HMIS® IV:**

- **HEALTH:**
  - *
  - 2

- **FLAMMABILITY:**
  - 1

- **PHYSICAL HAZARD:**
  - 0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

**Full text of other abbreviations**

- **ACGIH:** USA. ACGIH Threshold Limit Values (TLV)
- **NIOSH REL:** USA. NIOSH Recommended Exposure Limits
- **OSHA Z-1:** USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
- **OSHA Z-3:** USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
- **US WEEL:** USA. Workplace Environmental Exposure Levels (WEEL)
- **ACGIH / TWA:** 8-hour, time-weighted average
- **ACGIH / STEL:** Short-term exposure limit
- **NIOSH REL / TWA:** Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
- **OSHA Z-1 / TWA:** 8-hour time-weighted average
- **OSHA Z-3 / TWA:** 8-hour time-weighted average
- **US WEEL / TWA:** 8-hr TWA

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; Elx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECS - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Ko-
Sources of key data used to compile the Material Safety Data Sheet:


Revision Date: 11/13/2016

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.