

GREENFORCE(TM) Revision Number 3

# **SAFETY DATA SHEET**

In accordance with OSHA 29 CFR 1910.1200

Revision date 14-Nov-2022 Supersedes Date: 15-Feb-2019

| 1. Identification   |   |             |  |  |  |
|---|---|-------------|--|--|--|
| 1.1. Product identifier   |   |             |  |  |  |
| Product Name  | GREENFORCE(TM)  |             |  |  |  |
| Other means of identification<br>Other information  | Not applicable  |             |  |  |  |
| 1.2. Relevant identified uses of the  | substance or mixture and uses advised against   |             |  |  |  |
| Recommended use<br>Restrictions on use  | Adhesives and/or sealants<br>No information available   |             |  |  |  |
| 1.3. Details of the supplier of the sa  | fety data sheet   |             |  |  |  |
| Responsible Party<br>Bostik Inc.<br>11320 W. Watertown Plank Road<br>Wauwatosa, Wisconsin 53226 USA<br>Phone: +1 (800) 843-0844 (Domestic<br>Phone: +1 (414) 774-2250 (Internatio<br>Fax: +1 (414) 774-8075 |   |             |  |  |  |
| E-mail  | msds@bostik.com   |             |  |  |  |
| 1.4. Emergency telephone number<br>Emergency Telephone  | Chemtrec: 1-800-424-9300 (US) , 1-703-527-3887<br><b>Rocky Mountain Poison Center:</b> 1-866-767-508<br>CHEMTREC (Chemical Transportation Emergency | 9           |  |  |  |
| 2. Hazard(s) identification   |   |             |  |  |  |
| 2.1. Classification of the substance  | or mixture  |             |  |  |  |
| Skin sensitization  |   | Category 1  |  |  |  |
| Reproductive toxicity   |   | Category 1B |  |  |  |
| Hazards not otherwise classified (H<br>Not applicable   | INOC)   | 1 V /       |  |  |  |

## 2.2. Label elements

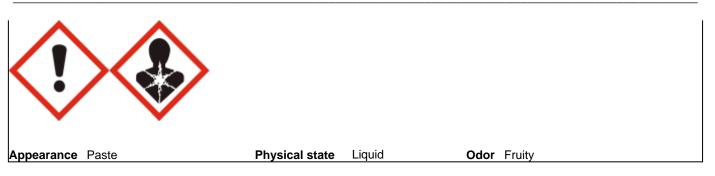
## **EMERGENCY OVERVIEW**

# Danger

# Hazard statements

May cause an allergic skin reaction May damage fertility or the unborn child

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# **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

# **Precautionary Statements - 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

# **Precautionary Statements - Storage**

Store locked up

# **Precautionary Statements - Disposal**

Dispose of contents/ container to an approved waste disposal plant

2 % of the mixture consists of ingredient(s) of unknown toxicity

## 2.3. Other Information

Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing.

# 3. Composition/information on ingredients

### 3.1. Substances

Not applicable.

### Mixture

| Chemical name  | CAS No     | Weight-% |
|--|------------|----------|
| Limestone  | 1317-65-3  | 40 - 70  |
| Carbonic acid, calcium salt (1:1)                        | 471-34-1   | 3 - <7   |
| Trimethoxyvinylsilane                                    | 2768-02-7  | 1 - <5   |
| N-(3-(trimethoxysilyl)propyl)ethylenediamine             | 1760-24-3  | 0.1 - <1 |
| Quartz   | 14808-60-7 | 0.1 - <1 |
| Tin, dibutylbis(2,4-pentanedionato-O,O')-,<br>(OC-6-11)- | 22673-19-4 | 0.1 - <1 |

\*The exact percentage (concentration) of composition has been withheld as a trade secret

#### 4.1. Description of first aid measures

| General advice | If medical advice is needed, have product container or label at hand. Show this safety data sheet to the doctor in attendance.   |
|----------------|--|
| Inhalation     | Remove to fresh air. If symptoms persist, call a physician.  |
| Eye contact    | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.<br>Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists:<br>Get medical advice/attention.   |
| Skin contact   | Immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash contaminated clothing before reuse. May cause sensitization by skin contact. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician. |
| Ingestion      | Call a physician immediately. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Small amounts of toxic methanol are released by hydrolysis.  |

#### 4.2. Most important symptoms and effects, both acute and delayed

| Symptoms  | May cause allergic skin reaction. Erythema (skin redness). Hives. Itching.  |  |  |
|---|---|--|--|
| 4.3. Indication of any immediate medical attention and special treatment needed |   |  |  |
| Note to physicians  | Treat symptomatically. Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing. |  |  |

# 5. Fire-fighting measures

#### 5.1. Extinguishing media

| Suitable Extinguishing Media<br>Large Fire        | Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam.<br>CAUTION: Use of water spray when fighting fire may be inefficient.          |
|---|---|
| Unsuitable extinguishing media                    | Full water jet.   |
| 5.2. Special hazards arising from th              | e substance or mixture  |
| Specific hazards arising from the<br>chemical     | Thermal decomposition can lead to release of irritating gases and vapors. Product is or contains a sensitizer. May cause sensitization by skin contact. |
| Hazardous combustion products                     | Carbon oxides. Carbon monoxide. Carbon dioxide (CO2). Sulfur oxides. Silicon dioxide.   |
| Explosion data<br>Sensitivity to mechanical impac | t None.   |
| Sensitivity to static discharge                   | None.   |
| 5.3. Advice for firefighters                      |   |
| Special protective equipment for<br>fire-fighters | As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.                  |

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# 6.1. Personal precautions, protective equipment and emergency procedures

| Personal precautions                | Use personal protective equipment as required. Do not touch or walk through spilled material. Ensure adequate ventilation. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling.                        |
|-------------------------------------|---|
| Other information                   | Refer to protective measures listed in Sections 7 and 8.  |
| 6.2. Environmental precautions      |   |
| Environmental precautions           | Prevent entry into waterways, sewers, basements or confined areas. Do not allow to enter into soil/subsoil. See Section 12 for additional Ecological Information.   |
| 6.3. Methods and material for conta | inment and cleaning up  |
| Methods for containment             | Prevent further leakage or spillage if safe to do so. Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13). |
| Methods for cleaning up             | Use personal protective equipment as required. Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly.                       |
| Reference to other sections         | See section 8 for more information. See section 13 for more information.  |

# 7. Handling and storage

### 7.1. Precautions for safe handling

| Advice on safe handling | Use personal protective equipment as required. Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Take off |
|-------------------------|--|
|                         | contaminated clothing and wash before reuse.   |

## 7.2. Conditions for safe storage, including any incompatibilities

# Storage ConditionsKeep/store only in original container. Keep away from food, drink and animal feeding stuffs.<br/>Protect from moisture.

Recommended storage temperature Keep at temperatures between 50 and 95 °F / 10 and 35 °C.

#### 7.3 References to other sections

| Reference to other sections | Section 13: DISPOSAL CONSIDERATIONS  |
|-----------------------------|--------------------------------------|
|                             | Section 10: STABILITY AND REACTIVITY |

# 8. Exposure controls/personal protection

# 8.1. Control parameters

Exposure Limits

Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing. This product contains substances which in their raw state are powder form, however in this product they are in a non-respirable form. Inhalation of powder/dust particles is

unlikely to occur from exposure to this product.

| Chemical name  | ACGIH TLV   | OSHA PEL  | NIOSH  |
|--|---|---|--|
| Limestone<br>1317-65-3   | -   | TWA: 15 mg/m <sup>3</sup> total dust<br>TWA: 5 mg/m <sup>3</sup> respirable<br>fraction<br>(vacated) TWA: 15 mg/m <sup>3</sup> total  | TWA: 10 mg/m <sup>3</sup> total dust<br>TWA: 5 mg/m <sup>3</sup> respirable dust |
|  |   | dust<br>(vacated) TWA: 5 mg/m <sup>3</sup><br>respirable fraction   |  |
| Carbonic acid, calcium salt (1:1)<br>471-34-1                              | -   | -   | TWA: 10 mg/m <sup>3</sup> total dust<br>TWA: 5 mg/m <sup>3</sup> respirable dust |
| Quartz<br>14808-60-7   | TWA: 0.025 mg/m <sup>3</sup> respirable<br>particulate matter | TWA: 50 μg/m <sup>3</sup><br>TWA: 50 μg/m <sup>3</sup> excludes<br>construction work, agricultural<br>operations, and exposures that<br>result from the processing of<br>sorptive clays<br>(vacated) TWA: 0.1 mg/m <sup>3</sup><br>respirable dust<br>: (250)/(%SiO2 + 5) mppcf<br>TWA respirable fraction<br>: (10)/(%SiO2 + 2) mg/m <sup>3</sup><br>TWA respirable fraction | IDLH: 50 mg/m³ respirable dust<br>TWA: 0.05 mg/m³ respirable<br>dust             |
| Tin,<br>dibutylbis(2,4-pentanedionato-O<br>,O')-, (OC-6-11)-<br>22673-19-4 | STEL: 0.2 mg/m³ Sn<br>TWA: 0.1 mg/m³ Sn<br>S*                 | TWA: 0.1 mg/m³ Sn<br>(vacated) TWA: 0.1 mg/m³ Sn<br>(vacated) S*  | IDLH: 25 mg/m³ Sn<br>TWA: 0.1 mg/m³ except<br>Cyhexatin Sn                       |

| Chemical name  | Argentina   | Brazil  | Chile                             | Colombia  |
|--|---|---|-----------------------------------|---|
| Limestone  | TWA: 10 mg/m <sup>3</sup>   | -   | LPP: 7 mg/m <sup>3</sup>          | -   |
| 1317-65-3  |   |   | LPP: 5 mg/m <sup>3</sup>          |   |
| Quartz<br>14808-60-7   | TWA: 0.05 mg/m <sup>3</sup>                                       | TWA: 0.025 mg/m <sup>3</sup>                              | LPP: 0.08 mg/m <sup>3</sup>       | TWA: 0.025mg/m <sup>3</sup>                             |
| Tin,<br>dibutylbis(2,4-pentanedionato-O<br>,O')-, (OC-6-11)-<br>22673-19-4 | TWA: 0.1 mg/m <sup>3</sup><br>Skin<br>STEL: 0.2 mg/m <sup>3</sup> | TWA: 0.1 mg/m <sup>3</sup><br>STEL: 0.2 mg/m <sup>3</sup> | LPP: 0.09 mg/m <sup>3</sup><br>S* | STEL: 0.2mg/m <sup>3</sup><br>TWA: 0.1mg/m <sup>3</sup> |

| Chemical name  | Costa Rica  | Peru  | Uruguay   | Venezuela                                 |
|--|---|---|---|---|
| Carbonic acid, calcium salt (1:1)<br>471-34-1                              | -   | TWA: 10mg/m <sup>3</sup>                                | -   | TWA: 10 mg/m <sup>3</sup>                 |
| Quartz<br>14808-60-7   | TWA: 0.025mg/m <sup>3</sup>                             | TWA: 0.05mg/m <sup>3</sup>                              | 0.025 mg/m <sup>3</sup> TWA<br>(respirable particulate<br>matter) | TWA: 0.025 mg/m <sup>3</sup>              |
| Tin,<br>dibutylbis(2,4-pentanedionato-O<br>,O')-, (OC-6-11)-<br>22673-19-4 | TWA: 0.1mg/m <sup>3</sup><br>STEL: 0.2mg/m <sup>3</sup> | STEL: 0.2mg/m <sup>3</sup><br>TWA: 0.1mg/m <sup>3</sup> | 0.2 mg/m³ STEL (as Sn)<br>0.1 mg/m³ TWA (as Sn)                   | Skin<br>STEL: 0.2 mg/m³<br>TWA: 0.1 mg/m³ |

# 8.2. Exposure controls

**OTHER INFORMATION** 

Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing.

| Chemical name             | ACGIH TLV                           | OSHA PEL   | NIOSH  |
|---------------------------|-------------------------------------|--|--|
| Methyl alcohol<br>67-56-1 | STEL: 250 ppm<br>TWA: 200 ppm<br>S* | TWA: 200 ppm<br>TWA: 260 mg/m <sup>3</sup><br>(vacated) TWA: 200 ppm<br>(vacated) TWA: 260 mg/m <sup>3</sup><br>(vacated) STEL: 250 ppm<br>(vacated) STEL: 325 mg/m <sup>3</sup><br>(vacated) S* | IDLH: 6000 ppm<br>TWA: 200 ppm<br>TWA: 260 mg/m <sup>3</sup><br>STEL: 250 ppm<br>STEL: 325 mg/m <sup>3</sup> |

| Chemical name             | Argentina                             | Brazil  | Chile  | Colombia                    |
|---------------------------|---------------------------------------|---|--|-----------------------------|
| Methyl alcohol<br>67-56-1 | TWA: 200 ppm<br>Skin<br>STEL: 250 ppm | TWA: 156 ppm<br>TWA: 200 mg/m <sup>3</sup><br>STEL: 250 ppm | LPP: 175 ppm<br>LPP: 229 mg/m <sup>3</sup><br>S* | STEL: 250ppm<br>TWA: 200ppm |
|                           |                                       | Skin  | LPT: 250 ppm<br>LPT: 328 mg/m <sup>3</sup>       |                             |

| Chemical name             | Costa Rica                  | Peru   | Uruguay                     | Venezuela                             |
|---------------------------|-----------------------------|--|-----------------------------|---------------------------------------|
| Methyl alcohol<br>67-56-1 | TWA: 200ppm<br>STEL: 250ppm | STEL: 250ppm<br>STEL: 328mg/m <sup>3</sup><br>TWA: 200ppm<br>TWA: 262mg/m <sup>3</sup> | 250 ppm STEL<br>200 ppm TWA | Skin<br>STEL: 250 ppm<br>TWA: 200 ppm |

# Appropriate engineering controls

| Engineering controls | Showers<br>Eyewash stations |
|----------------------|-----------------------------|
|                      | Ventilation systems.        |

# Individual protection measures, such as personal protective equipment

| Eye/face protection            | Wear safety glasses with side shields (or goggles).  |
|--------------------------------|--|
| Hand protection                | Wear suitable chemical resistant gloves. The selection of suitable gloves does not only depend on the material, but also on further marks of quality and various manufacturers.  |
| Skin and body protection       | Wear suitable protective clothing.   |
| Respiratory protection         | If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.  |
| General hygiene considerations | Wear suitable gloves and eye/face protection. Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Take off contaminated clothing and wash it before reuse. Regular cleaning of equipment, work area and clothing is recommended. |

# 9. Physical and chemical properties

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| Physical state                            | Liquid                              |   |
|---|-------------------------------------|---|
| Appearance                                | Paste                               |   |
| Color                                     | Beige                               |   |
| Odor                                      | Fruity                              |   |
| Odor threshold                            | No information available            |   |
| Property_                                 | Values                              | Remarks • Method                                      |
| pH  | No data available                   | None known  |
| pH (as aqueous solution)                  | No data available                   | None known  |
| Melting point / freezing point            | No data available                   | None known  |
| Initial boiling point and boiling rang    |                                     | None known  |
| Flash point                               | > 110 °C / 230 °F                   | ASTM D3278  |
| Evaporation rate                          | No data available                   | None known  |
| Flammability                              | Not applicable for liquids .        | None known  |
| Flammability Limit in Air                 |                                     | None known  |
| Upper flammability or explosive<br>limits | No data available                   |   |
| Lower flammability or explosive<br>limits | No data available                   |   |
| Vapor pressure                            | No data available                   | None known  |
| Relative vapor density                    | No data available                   | None known  |
| Relative density                          | No data available                   | None known  |
| Water solubility                          | No data available                   | None known  |
| Solubility(ies)                           | No data available                   | None known  |
| Partition coefficient                     | No data available                   | None known  |
| Autoignition temperature                  | No data available                   | None known  |
| Decomposition temperature                 | No data available                   | None known  |
| Kinematic viscosity                       | No data available                   | None known  |
| Dynamic viscosity                         | No data available                   | None known  |
| 9.2. Other information                    |                                     |   |
| Explosive properties                      | No information available            |   |
| Oxidizing properties                      | No information available            |   |
| Solvent content (%)                       | No information available            |   |
| Solid content (%)                         | 96.8                                |   |
| Softening Point                           | No information available            |   |
| Molecular weight                          | No information available            |   |
| VOC content                               | 0 g/L                               | No information available                              |
| Liquid Density                            | 1.710 g/cm <sup>3</sup>             |   |
| Bulk density                              | No information available            |   |
| 10. Stability and reactivity              |                                     |   |
| 10.1. Reactivity                          |                                     |   |
| Reactivity                                | Product cures with moisture.        |   |
| 10.2. Chemical stability                  |                                     |   |
| Chemical stability                        | Stable under normal conditions.     |   |
| 10.3. Possibility of hazardous react      | ions                                |   |
| Possibility of hazardous reactions        | None under normal processing.       |   |
| 10.4. Conditions to avoid                 |                                     |   |
| Conditions to avoid                       | Protect from moisture Exposure to a | ir or moisture over prolonged periods. Do not freeze. |
|   |                                     |   |
| US - EN                                   |                                     | Page 7 / 13   |
|   |                                     |   |

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Keep away from open flames, hot surfaces and sources of ignition.

#### 10.5. Incompatible materials

Incompatible materials Water.

10.6. Hazardous decomposition products

Hazardous decomposition products Carbon oxides Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing

# 11. Toxicological information

#### 11.1. Information on toxicological effects

#### **Product Information**

| Inhalation   | Based on available data, the classification criteria are not met.  |
|--------------|--|
| Eye contact  | Based on available data, the classification criteria are not met.  |
| Skin contact | May cause sensitization by skin contact. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. |
| Ingestion    | Based on available data, the classification criteria are not met.  |
|              |  |

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Itching. Rashes. Hives.

Acute toxicity Numerical measures of toxicity

### The following values are calculated based on chapter 3.1 of the GHS document

| ATEmix (dermal)           | 63,457.50 mg/kg |
|---------------------------|-----------------|
| ATEmix (inhalation-vapor) | 875.10 mg/l     |

### **Component Information**

| Chemical name  | Oral LD50                                    | Dermal LD50                             | Inhalation LC50                               |
|--|--|---|---|
| Limestone<br>1317-65-3   | >5000 mg/kg (Rattus)                         | -                                       | -   |
| Carbonic acid, calcium salt (1:1)<br>471-34-1                              | LD50 > 2000 mg/kg (Rattus)<br>OECD 420       | LD50 >2000 mg/kg (Rattus)<br>OECD 402   | LC50 (4h) >3mg/ml (Rattus)                    |
| Trimethoxyvinylsilane<br>2768-02-7   | LD50 = 7120 -7236 mg/kg<br>(Rattus) OECD 401 | = 3540 mg/kg (Oryctolagus<br>cuniculus) | LC50 (4hr) 16.8 mg/l (Rattus)<br>OECD TG 403  |
| N-(3-(trimethoxysilyl)propyl)ethy<br>lenediamine<br>1760-24-3              | =2295 mg/kg (Rattus)                         | >2000 mg/Kg (Rattus)                    | LC50 4H (Aerosol)1.5 - 2.44<br>mg/L air       |
| Quartz<br>14808-60-7   | >20000 mg/kg                                 | -                                       | -   |
| Tin,<br>dibutylbis(2,4-pentanedionato-O<br>,O')-, (OC-6-11)-<br>22673-19-4 | LD50 = 1864 mg/kg (Rattus)<br>OECD 401       | LD50 > 2000 mg/kg (Rattus)<br>OECD 402  | LC50 4hr: 16.8 mg/l (Rattus)<br>(OECD TG 403) |

# **GREENFORCE(TM)**

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

#### Skin corrosion/irritation

Based on available data, the classification criteria are not met.

Trimethoxyvinylsilane (2768-02-7)

| Method | Species | Exposure route | Effective dose | Exposure time | Results      |
|--------|---------|----------------|----------------|---------------|--------------|
|        | Rabbit  | Dermal         | 0.5 mL         | 24 hours      | Non-irritant |

#### Serious eye damage/eye irritation Based on available data, the classification criteria are not met.

Trimethoxyvinylsilane (2768-02-7)

| Method                   | Species | Exposure route | Effective dose | Exposure time | Results      |
|--------------------------|---------|----------------|----------------|---------------|--------------|
| OECD Test No. 405: Acute | Rabbit  | еуе            |                | 24 hours      | Non-irritant |
| Eye Irritation/Corrosion |         |                |                |               |              |

Respiratory or skin sensitization

May cause sensitization by skin contact.

#### Trimethoxyvinylsilane (2768-02-7)

| Method                      | Species    | Exposure route | Results     |
|-----------------------------|------------|----------------|-------------|
| OECD Test No. 406: Skin     | Guinea pig | Dermal         | sensitizing |
| Sensitization, Buehler test |            |                | -           |

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

#### Trimethoxyvinylsilane (2768-02-7)

| Method  | Species  | Results       |
|---|----------|---------------|
| OECD Test No. 471: Bacterial Reverse Mutation | in vitro | Not mutagenic |
| Test  |          | -             |

#### Tin, dibutylbis(2,4-pentanedionato-O,O')-, (OC-6-11)- (22673-19-4)

| Method                                     | Species  | Results   |
|--|----------|-----------|
| OECD Test No. 476: In vitro Mammalian Cell | in vitro | Mutagenic |
| Gene Mutation Test                         |          |           |

#### Carcinogenicity

Based on available data, the classification criteria are not met. As Quartz (14808-60-7) is inextricably bound in the polymer matrix, it is not expected to be available as an airborne hazard (dust, mist, or spray) under normal condition of uses.

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

| Chemical name        | ACGIH | IARC    | NTP   | OSHA |
|----------------------|-------|---------|-------|------|
| Quartz<br>14808-60-7 | A2    | Group 1 | Known | Х    |

Legend

ACGIH (American Conference of Governmental Industrial Hygienists) A2 - Suspected Human Carcinogen IARC (International Agency for Research on Cancer) Group 1 - Carcinogenic to Humans NTP (National Toxicology Program) Known - Known Carcinogen OSHA (Occupational Safety and Health Administration of the US Department of Labor) X - Present

# Quartz (14808-60-7)

| Method | Species | Results |
|--------|---------|---------|
|        |         |         |

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| IARC (International Agency for Research on | Human evidence | Carcinogenic |
|--|----------------|--------------|
| Cancer)                                    |                |              |

## **Reproductive toxicity**

Contains a known or suspected reproductive toxin. May cause harm to breast-fed children.

#### Trimethoxyvinylsilane (2768-02-7)

| Method  | Species | Results          |
|---|---------|------------------|
| OECD Test No. 422: Combined Repeated Dose     | Rat     | Not Classifiable |
| Toxicity Study with the                       |         |                  |
| Reproduction/Developmental Toxicity Screening |         |                  |
| Test  |         |                  |

# STOT - single exposure

Based on available data, the classification criteria are not met.

## **STOT - repeated exposure**

Based on available data, the classification criteria are not met.

## Trimethoxyvinylsilane (2768-02-7)

| Method  | Species | Exposure route   | Effective dose | Exposure time | Results     |
|---|---------|------------------|----------------|---------------|-------------|
| OECD Test No. 413:<br>Subchronic Inhalation<br>Toxicity: 90-day Study | Rat     | Inhalation vapor |                | 90 days       | 0.058 NOAEL |

| Target organ effects  | Eyes, Respiratory system, Skin.                                   |
|-----------------------|---|
| Aspiration hazard     | Based on available data, the classification criteria are not met. |
| Other adverse effects | No information available.   |
| Interactive effects   | No information available.   |

# 12. Ecological information

# 12.1. Toxicity

# Ecotoxicity

| Chemical name   | Algae/aquatic plants  | Fish   | Toxicity to<br>microorganisms | Crustacea                                  |
|---|---|--|-------------------------------|--|
| Limestone<br>1317-65-3  | CE50 (72h) >200mg/L<br>Algae (Desmondesmus<br>subspicatus)              | CL50 (96h)>10000mg/L<br>(Oncorhynchus mykiss)    | -                             | CE50 (48h) >1000 mg/L<br>Daphnia Magna     |
| Carbonic acid, calcium<br>salt (1:1)<br>471-34-1              | IC50 72H Algae >1000<br>mg/l  | CL50 96H >1000 mg/l                              | -                             | EC50 48H Daphnia<br>>1000 mg/l             |
| Trimethoxyvinylsilane<br>2768-02-7                            | EC 50 (72h) > 957 mg/l<br>(Desmodesmus<br>subspicatus)<br>EU Method C.3 | LC50 (96h) = 191 mg/l<br>(Oncorhynchus mykiss)   | -                             | EC50(48hr) 168.7mg/l<br>(Daphnia magna)    |
| N-(3-(trimethoxysilyl)prop<br>yl)ethylenediamine<br>1760-24-3 | -   | LC50 (96H) =597 mg/L<br>(Danio rerio)Semi-static | -                             | EC50 (48h) =81mg/L<br>Daphnia magna Static |
| Tin,<br>dibutylbis(2,4-pentanedio<br>nato-O,O')-, (OC-6-11)-  | >2.0 mg/l   | >2.0 mg/l  | -                             | EC50 0.0036 mg/l 48Hr<br>(Daphnia magna)   |

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### 12.2. Persistence and degradability

Persistence and degradability No information available.

## 12.3. Bioaccumulative potential

**Bioaccumulation** 

There is no data for this product.

# **Component Information**

| Chemical name   | Partition coefficient |
|---|-----------------------|
| Limestone<br>1317-65-3                                    | 0.9                   |
| Trimethoxyvinylsilane<br>2768-02-7                        | 1.1                   |
| N-(3-(trimethoxysilyl)propyl)ethylenediamine<br>1760-24-3 | -0.3                  |

### 12.4. Mobility in soil

| Mobility              | No information available. |
|-----------------------|---------------------------|
| Other adverse effects |                           |
| Other adverse effects | No information available. |

# 13. Disposal considerations

| 13.1. Waste treatment methods          |  |
|--|--|
| Waste from residues/unused<br>products | Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable. |
| Contaminated packaging                 | Handle contaminated packages in the same way as the product itself.  |

# 14. Transport information

| Note:  | The information shown here, may not always agree with the bill of lading shipping description for the material The shipping descriptions shown here are for bulk shipments only, and may not apply to shipments made in non-bulk packages (see regulatory definition) 49 CFR 171.4(c) "Exceptions. Except when all or part of the transportation is by vessel, the requirements of this subchapter specific to marine pollutants do not apply to non-bulk packagings transported by motor vehicle, rail car or aircraft." |
|--|---|
| DOT<br>UN number or ID number<br>Proper Shipping Name<br>Transport hazard class(es)<br>Packing Group<br>Special Provisions<br>Marine Pollutant | UN3082<br>Environmentally hazardous substance, liquid, n.o.s.<br>9<br>III<br>8, 146, 173, 335, IB3, T4, TP1, TP29<br>Np   |

| GREENFORCE(TM)             | Revision date 14-Nov-2022   |  |  |
|----------------------------|---|--|--|
| Revision Number 3          | Supersedes Date: 15-Feb-2019  |  |  |
| Description                | UN3082, Environmentally hazardous substance, liquid, n.o.s.(Tin,            |  |  |
| Emergency Response Guide   | dibutylbis(2,4-pentanedionato-O,O')-, (OC-6-11)-), 9, III, Marine Pollutant |  |  |
| Number                     | 171   |  |  |
| IATA                       | UN3082  |  |  |
| UN number or ID number     | Environmentally hazardous substance, liquid, n.o.s.                         |  |  |
| UN proper shipping name    | 9   |  |  |
| Transport hazard class(es) | III   |  |  |
| Packing group              | A97, A158, A197   |  |  |
| Special Provisions         | UN3082, Environmentally hazardous substance, liquid, n.o.s.(Tin,            |  |  |
| Description                | dibutylbis(2,4-pentanedionato-O,O')-, (OC-6-11)-), 9, III                   |  |  |
| IMDG                       | UN3082  |  |  |
| UN number or ID number     | Environmentally hazardous substance, liquid, n.o.s.                         |  |  |
| UN proper shipping name    | 9   |  |  |
| Transport hazard class(es) | III   |  |  |
| Packing group              | F-A, S-F  |  |  |
| EmS-No                     | 274, 335, 969   |  |  |
| Special Provisions         | P   |  |  |
| Marine pollutant           | UN3082, Environmentally hazardous substance, liquid, n.o.s.(Tin,            |  |  |
| Description                | dibutylbis(2,4-pentanedionato-O,O')-, (OC-6-11)-), 9, III, Marine Pollutant |  |  |

# 15. Regulatory information

## International Inventories

| DSL Listed |  |
|------------|--|

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL** - Canadian Domestic Substances List

Listed - The components of this product are either listed or exempt from listing on inventory.

Not Listed - One or more components of this product are not listed on inventory.

## US Federal Regulations

### 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 Title 40 of the Code of Federal Regulations, Part 372.

### SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

# Europe

### Restrictions of Use of Hazardous Substances (RoHS) Directive 2011/65/EU

This product does not contain Lead, Cadmium, Mercury, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE), Bis(2-Ethylhexyl) phthalate (DEHP), Benzyl butyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP) above the regulated limit mentioned in this regulation. This document is based on the information given to us by our own suppliers at the date of this document.

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### SVHC: Substances of Very High Concern for Authorization:

This product contains one or more candidate substance(s) of very high concern (Regulation (EC) No. 1907/2006 (REACH), Article 59)

| Chemical name   | CAS No     | SVHC candidates |
|---|------------|-----------------|
| Tin, dibutylbis(2,4-pentanedionato-O,O')-, (OC-6-11)- | 22673-19-4 | Х               |

# 16. Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

| Legend Section 8<br>TWA<br>Ceiling | B: EXPOSURE CONTROLS/PERSONAL PF<br>TWA (time-weighted average)<br>Maximum limit value | ROTECTION<br>STEL<br>*               | STEL (Short Term Exposure Limit)<br>Skin designation |  |
|------------------------------------|--|--------------------------------------|--|--|
| Prepared By                        | Product Safety & Regul   | Product Safety & Regulatory Affairs. |  |  |
| Revision date                      | 14-Nov-2022  |                                      |  |  |
| <b>Revision Note</b>               | SDS sections updated.  | 1. 2. 3. 4. 5. 6. 7.                 | 8. 9. 10. 11. 12. 13. 14. 15. 16.                    |  |

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The Company adheres to a strict policy that applies to the use of any of its products in medical device applications. This policy can be found at

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**End of Safety Data Sheet**