

# Safety Data Sheet

## Product Identifier

### SECTION 1. IDENTIFICATION

**Product Identifier** Ziollo RV Roof Lap Sealant  
**Other Means of Identification** None  
**Recommended Use** Adhesive/Sealant  
**Restrictions on Use** None known  
**Initial Supplier Identifier** Ziollo Inc.  
#16-1150 Eighth Line,  
Oakville, Ontario L6H 2R4, CANADA

**Emergency Telephone** 1-855-451-5820 – 24 hrs a day

Alberta / Northwestern Territories (PADIS): 1-800-332-1414  
British Columbia (DPIC): 1-800-567-8911  
Manitoba: 1-855-7POISON (1-855-776-4766)  
New Brunswick: 911  
Nova Scotia / Prince Edward Island (IWK): 1-800-565-8161  
Ontario (OPC): 1-800-268-9017  
Québec (CAPQ): 1-800-463-5060  
Saskatchewan (PADIS): 1-866-454-1212  
Yukon Territory: (867) 393-8700

CANUTEC 1-888-CAN-UTEC (226-8832), 613-996-6666 or \*666 on a cellular phone

USA - Contact the poison control at 1-800-222-1222 (24/7) or use the webPOISONCONTROL® (triage.webpoisoncontrol.org) to get specific guidance for your case

See also section 4 “First aid measures”.

### SECTION 2. HAZARD IDENTIFICATION

#### Classification of the substance or mixture

|                                     |             |   |
|-------------------------------------|-------------|---|
| Serious eye damage/eye irritation - | Category 2  | H319 Causes serious eye irritation            |
| Skin sensitization -                | Category 1  | H317 May cause an allergic skin reaction      |
| Reproductive toxicity -             | Category 1B | H360 May damage fertility or the unborn child |

Full text of H statements: see section 16

**Signal Word:** Danger

#### Hazard Statement(s):

H317 - May cause an allergic skin reaction  
H319 - Causes serious eye irritation  
H360 - May damage fertility or the unborn child



**Precautionary Statement(s):**

P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.

P264 - Wash hands, forearms and face thoroughly after handling.

P272 - Contaminated work clothing should not be allowed out of the workplace.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 - IF ON SKIN: Wash with plenty of 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.

P321 - Specific treatment (see supplemental first aid instruction on this label).

P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

P337+P313 - If eye irritation persists: Get medical advice/attention.

P362+P364 - Take off contaminated clothing and wash it before reuse.

P405 - Store locked up.

P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

| Name   | Chemical name / Synonyms                           | Product identifier  | %     | Classification (GHS CA)  |
|--|--|---------------------|-------|--|
| Titanium oxide (TiO <sub>2</sub> )                 | Titanium dioxide                                   | CAS-No.: 13463-67-7 | 1 – 5 | Carc. 2, H351  |
| Vinyltrimethoxysilane                              | Vinyltrimethoxysilane                              | CAS-No.: 2768-02-7  | ≥ 1   | Acute Tox. 4 (Inhalation), H332<br>Acute Tox. 4 (Inhalation: vapor), H332<br>Skin Sens. 1, H317          |
| 1,2-Ethanediamine, N1-[3-(trimethoxysilyl)propyl]- | 1,2-Ethanediamine, N1-[3-(trimethoxysilyl)propyl]- | CAS-No.: 1760-24-3  | 1 – 5 | Acute Tox. 4 (Inhalation: dust, mist), H332<br>Eye Dam. 1, H318<br>Skin Sens. 1, H317<br>STOT SE 3, H335 |
| Dibutyl bis(2,4-pentanedionate) tin                | Dibutyl bis (2,4-pentanedionate) tin               | CAS-No.: 22673-19-4 | < 1   | Repr. 1B, H360 STOT RE 1, H372   |
| quartz, conc respirable crystalline silica ≥ 10%   | quartz, conc respirable crystalline silica ≥ 10%   | CAS-No.: 14808-60-7 | < 1   | Muta. 2, H341 Carc. 1A, H350 STOT RE 1, H372   |

**SECTION 4. FIRST-AID MEASURES****First-aid measures after inhalation:****First-aid measures after skin contact:****First-aid measures after eye contact:**

Remove person to fresh air and keep comfortable for breathing.

Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.

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.

|   |   |
|---|---|
| <b>First-aid measures after ingestion:</b>  | Call a poison center/doctor/physician if you feel unwell.   |
| <b>First-aid measures general:</b>          | IF exposed or concerned: Get medical advice/attention.  |
| <b>Symptoms/effects after inhalation:</b>   | Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard. |
| <b>Symptoms/effects after skin contact:</b> | May cause an allergic skin reaction.  |
| <b>Symptoms/effects after eye contact:</b>  | Eye irritation.   |
| <b>Symptoms/effects after ingestion:</b>    | None under normal conditions.   |
| <b>Chronic symptoms:</b>                    | May damage fertility or the unborn child.   |

## SECTION 5. FIRE-FIGHTING MEASURES

|  |   |
|--|---|
| <b>Suitable Extinguishing Media:</b>               | Water spray. Dry powder. Foam. Carbon dioxide.  |
| <b>Unsuitable Extinguishing Media:</b>             | Do not use a heavy water stream.  |
| <b>Specific Hazards Arising from the Chemical:</b> |   |
| Fire hazard:                                       | No fire hazard.   |
| Explosion hazard:                                  | No direct explosion hazard.   |
| Hazardous decomposition products in case of fire:  | Toxic fumes may be released.  |
| <b>Firefighting instructions:</b>                  | Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection. |
| <b>Protection during firefighting:</b>             | Do not attempt to act without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.                      |

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment & emergency procedures

|                          |   |
|--------------------------|---|
| <b>General measures:</b> | Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage. |
|--------------------------|---|

### Methods and Materials for Containment and Cleaning up

|                                 |  |
|---------------------------------|--|
| <b>For containment:</b>         | Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible, without risk. |
| <b>Methods for cleaning up:</b> | Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.  |
| <b>Other information:</b>       | Dispose of materials or solid residues at an authorized site.  |

## SECTION 7. HANDLING AND STORAGE

### Precautions for Safe Handling

|                                       |   |
|---------------------------------------|---|
| <b>Precautions for safe handling:</b> | Ensure good ventilation of the workstation. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Avoid contact with skin and eyes. Avoid |
|---------------------------------------|---|

breathing dust/fume/gas/mist/vapors/spray.

**Hygiene measures:**

Separate working clothes from town clothes. Launder separately. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

**Additional hazards when processed:**

Not expected to present a significant hazard under anticipated conditions of normal use.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

|   |  |
|---|--|
| <b>Vinyltrimethoxysilane (2768-02-7)</b>                        |  |
| <b>Canada (Ontario) - Occupational Exposure Limits</b>          |  |
| Local name  | Trimethoxyvinylsilane  |
| OEL TWAEV   | 60 mg/m <sup>3</sup>   |
|   | 10 ppm   |
| Regulatory reference  | Ontario Occupational Exposure Limits under Regulation 833  |
| <b>Titanium oxide (TiO<sub>2</sub>) (13463-67-7)</b>            |  |
| <b>Canada (Alberta) - Occupational Exposure Limits</b>          |  |
| Local name  | Titanium dioxide   |
| OEL TWA   | 10 mg/m <sup>3</sup>   |
| Notations and remarks   | Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required.                          |
| Regulatory reference  | Alberta Regulation 191/2021  |
| <b>Canada (Québec) - Occupational Exposure Limits</b>           |  |
| Local name  | Titanium dioxide   |
| VEMP (OEL TWAEV)  | 10 mg/m <sup>3</sup> Td  |
| Notations and remarks   | Note 1: The standard corresponds to dust containing no asbestos and the percentage in crystalline silica is less than 1%   |
| Regulatory reference  | S-2.1, r. 13 - Regulation respecting occupational health and safety  |
| <b>Canada (British Columbia) - Occupational Exposure Limits</b> |  |
| Local name  | Titanium dioxide   |
| OEL TWA   | 10 mg/m <sup>3</sup> Total dust<br>3 mg/m <sup>3</sup> Respirable fraction   |
| Notations and remarks   | IARC group 2B carcinogen   |
| <b>Titanium oxide (TiO<sub>2</sub>) (13463-67-7)</b>            |  |
| Regulatory reference  | OHS Guidelines Part 5: Chemical Agents and Biological Agents (WorkSafe BC)   |
| <b>Canada (Manitoba) - Occupational Exposure Limits</b>         |  |
| Local name  | Titanium dioxide   |
| OEL TWA   | 0.2 mg/m <sup>3</sup> (Nanoscale particles. R - Respirable particulate matter)<br>2.5 mg/m <sup>3</sup> (Finescale particles. R - Respirable particulate matter) |
| Notations and remarks   | TLV® Basis: LRT irr; pneumoconiosis. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans)  |
| Regulatory reference  | ACGIH 2024   |

|  |  |
|--|--|
| <b>Canada (New Brunswick) - Occupational Exposure Limits</b>             |  |
| Local name   | Titanium dioxide   |
| OEL TWA  | 10 mg/m <sup>3</sup>   |
| Notations and remarks  | LRT irr  |
| <b>Canada (Newfoundland and Labrador) - Occupational Exposure Limits</b> |  |
| Local name   | Titanium dioxide   |
| OEL TWA  | 0.2 mg/m <sup>3</sup> (Nanoscale particles. R - Repirable particulate matter)<br>2.5 mg/m <sup>3</sup> (Finescale particles. R - Repirable particulate matter) |
| Notations and remarks  | TLV® Basis: LRT irr; pneumoconiosis. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans)  |
| Regulatory reference   | ACGIH 2024   |
| <b>Canada (Nova Scotia) - Occupational Exposure Limits</b>               |  |
| Local name   | Titanium dioxide   |
| OEL TWA  | 0.2 mg/m <sup>3</sup> (Nanoscale particles. R - Repirable particulate matter)<br>2.5 mg/m <sup>3</sup> (Finescale particles. R - Repirable particulate matter) |
| Notations and remarks  | TLV® Basis: LRT irr; pneumoconiosis. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans)  |
| Regulatory reference   | ACGIH 2024   |
| <b>Canada (Nunavut) - Occupational Exposure Limits</b>                   |  |
| Local name   | Titanium dioxide   |
| OEL TWA  | 10 mg/m <sup>3</sup>   |
| OEL STEL   | 20 mg/m <sup>3</sup>   |
| Regulatory reference   | Occupational Health and Safety Regulations, Nu Reg 003-2016 (Amendment R-044-2021)   |
| <b>Canada (Northwest Territories) - Occupational Exposure Limits</b>     |  |
| Local name   | Titanium dioxide   |
| OEL TWA  | 10 mg/m <sup>3</sup>   |
| OEL STEL   | 20 mg/m <sup>3</sup>   |
| Regulatory reference   | Occupation Health and Safety Regulations R-039-2015 (R-013-2020)   |
| <b>Canada (Ontario) - Occupational Exposure Limits</b>                   |  |
| Local name   | Titanium dioxide   |
| OEL TWA EV   | 10 mg/m <sup>3</sup>   |
| <b>Titanium oxide (TiO<sub>2</sub>) (13463-67-7)</b>                     |  |
| Regulatory reference   | Ontario Occupational Exposure Limits under Regulation 833  |
| <b>Canada (Prince Edward Island) - Occupational Exposure Limits</b>      |  |
| Local name   | Titanium dioxide   |
| OEL TWA  | 2.5 mg/m <sup>3</sup> (Finescale particles. R - Repirable particulate matter)<br>0.2 mg/m <sup>3</sup> (Nanoscale particles. R - Repirable particulate matter) |
| Notations and remarks  | TLV® Basis: LRT irr; pneumoconiosis. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans)  |
| Regulatory reference   | ACGIH 2024   |
| <b>Canada (Saskatchewan) - Occupational Exposure Limits</b>              |  |
| Local name   | Titanium dioxide   |

|                      |   |
|----------------------|---|
| OEL TWA              | 10 mg/m <sup>3</sup>  |
| OEL STEL             | 20 mg/m <sup>3</sup>  |
| Regulatory reference | The Occupational Health and Safety Regulations, 2020. Chapter S-15.1 Reg 10 |

**Appropriate engineering controls:**

**Environmental exposure controls:**

**Personal protective equipment:**

**Hand protection:**

**Eye protection:**

**Skin and body protection:**

**Respiratory protection:**

Ensure good ventilation of the workstation.

Avoid release to the environment.

Wear recommended personal protective equipment.

Protective gloves

Safety glasses with side shields

Wear suitable protective clothing

[In case of inadequate ventilation] wear respiratory protection.

**Personal protective equipment symbol(s):**



## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical State:**

Liquid

**Color:**

White

**Odor:** There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure.

Mixture contains one or more component(s) which have the following odour: Almost odourless Characteristic odour

Odourless Mild odour Tallow odour Fruity odour Amine-like odour Pleasant odour Alcohol odour

Commercial/unpurified substance: irritating/pungent odour.

**Odor Threshold:**

No data available

**PH:**

No data available

**Relative evaporation rate (butyl acetate=1)**

No data available

**Relative evaporation rate (ether=1)**

No data available

**Melting Point:**

Not applicable

**Boiling Point:**

No data available

**Flash Point:**

No data available

**Auto-ignition temperature:**

No data available

**Decomposition temperature:**

No data available

**Flammability (solid, gas):**

No data available

**Vapor pressure:**

No data available

**Relative vapor density at 20°C:**

No data available

**Relative density:**

No data available

**Solubility:**

No data available

**Partition coefficient n-octanol/water:**

No data available

**Viscosity, kinematic:**

No data available

**Explosion limits:**

No data available

## SECTION 10. STABILITY AND REACTIVITY

|  |  |
|--|--|
| <b>Reactivity:</b>                         | The product is non-reactive under normal conditions of use, storage and transport.                   |
| <b>Chemical stability:</b>                 | Stable under normal conditions.  |
| <b>Possibility of hazardous reactions:</b> | No dangerous reactions known under normal conditions of use.   |
| <b>Conditions to avoid:</b>                | None under recommended storage and handling conditions (see section 7).                              |
| <b>Incompatible materials:</b>             | No additional information available  |
| <b>Hazardous decomposition products:</b>   | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| <b>Hardening time:</b>                     | No additional information available  |

## SECTION 11. TOXICOLOGICAL INFORMATION

|                                     |                |
|-------------------------------------|----------------|
| <b>Acute toxicity (oral):</b>       | Not classified |
| <b>Acute toxicity (dermal):</b>     | Not classified |
| <b>Acute toxicity (inhalation):</b> | Not classified |

### Vinyltrimethoxysilane (2768-02-7)

|                                 |   |
|---------------------------------|---|
| LD50 oral rat                   | 6899 – 7012 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))            |
| LD50 oral                       | 7120 mg/kg  |
| LD50 dermal rabbit              | 3158 – 3760 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Experimental value, Dermal, 14 day(s)) |
| LD50 dermal                     | 3259 mg/kg  |
| LC50 Inhalation - Rat           | 16.8 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s))           |
| LC50 Inhalation - Rat (Vapours) | 16.81 mg/l/4h   |
| ATE CA (oral)                   | 6899 mg/kg body weight  |
| ATE CA (Dermal)                 | 3158 mg/kg body weight  |
| ATE CA (Gases)                  | 4500 ppmV/4h  |
| ATE CA (vapors)                 | 16.8 mg/l/4h  |
| ATE CA (dust,mist)              | 1.5 mg/l/4h   |

### 1,2-Ethanediamine, N1-[3-(trimethoxysilyl)propyl]- (1760-24-3)

|                       |  |
|-----------------------|--|
| LD50 oral rat         | 2295 mg/kg body weight (EPA OPPTS 870.1100: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s))                          |
| LD50 dermal rabbit    | > 2000 mg/kg body weight (EPA OPPTS 870.1200: Acute Dermal Toxicity, 24 h, Rabbit, Male / female, Experimental value, Dermal, 14 day(s))           |
| LC50 Inhalation - Rat | 1.49 – 2.44 mg/l air (EPA OPPTS 870.1300: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s)) |
| ATE CA (oral)         | 2295 mg/kg body weight   |
| ATE CA (vapors)       | 1.49 mg/l/4h   |
| ATE CA (dust,mist)    | 1.49 mg/l/4h   |

### Dibutyl bis(2,4-pentanedionate)tin (22673-19-4)

|               |   |
|---------------|---|
| LD50 oral rat | 1864 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s)) |
|---------------|---|

|   |   |
|---|---|
| LD50 dermal rat                           | > 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s)) |
| LC50 Inhalation - Rat                     | > 2000 mg/kg  |
| ATE CA (oral)                             | 1864 mg/kg body weight  |
| <b>Titanium oxide (TiO2) (13463-67-7)</b> |   |
| LD50 oral rat                             | > 2000 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s))           |
| LD50 oral                                 | 5000 mg/kg  |
| LC50 Inhalation - Rat                     | > 5.09 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male, Experimental value, Inhalation (dust), 14 day(s))         |
| LC50 Inhalation - Rat (Dust/Mist)         | > 3.43 mg/l Source: ECHA  |
| ATE CA (oral)                             | 5000 mg/kg body weight  |

**Skin corrosion/irritation:** Not classified

|   |                                     |
|---|-------------------------------------|
| <b>quartz, conc respirable crystalline silica ≥ 10% (14808-60-7)</b>  |                                     |
| pH  | 6 – 7                               |
| <b>Vinyltrimethoxysilane (2768-02-7)</b>                              |                                     |
| pH  | No data available in the literature |
| <b>1,2-Ethanediamine, N1-[3-(trimethoxysilyl)propyl]- (1760-24-3)</b> |                                     |
| pH  | 10.2 (1 %)                          |
| <b>Dibutyl bis(2,4-pentanedionate)tin (22673-19-4)</b>                |                                     |
| pH  | No data available in the literature |
| <b>Titanium oxide (TiO2) (13463-67-7)</b>                             |                                     |
| pH  | 7 (aqueous suspension, 10 %)        |

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

|   |                                     |
|---|-------------------------------------|
| <b>quartz, conc respirable crystalline silica ≥ 10% (14808-60-7)</b>  |                                     |
| pH  | 6 – 7                               |
| <b>Vinyltrimethoxysilane (2768-02-7)</b>                              |                                     |
| pH  | No data available in the literature |
| <b>1,2-Ethanediamine, N1-[3-(trimethoxysilyl)propyl]- (1760-24-3)</b> |                                     |
| pH  | 10.2 (1 %)                          |
| <b>Dibutyl bis(2,4-pentanedionate)tin (22673-19-4)</b>                |                                     |
| pH  | No data available in the literature |
| <b>Titanium oxide (TiO2) (13463-67-7)</b>                             |                                     |
| pH  | 7 (aqueous suspension, 10 %)        |

**Respiratory or skin sensitization:** May cause an allergic skin reaction.

**Germ cell mutagenicity:** Not classified

**Carcinogenicity:** Not classified.

**Titanium oxide (TiO2) (13463-67-7)**

|                               |  |
|-------------------------------|--|
| <b>Additional information</b> | *Not a respirable hazard as contained in this liquid mixture |
|-------------------------------|--|



|                               |   |
|-------------------------------|---|
| <b>IARC group</b>             | 2B - Possibly carcinogenic to humans      |
| <b>Reproductive toxicity:</b> | May damage fertility or the unborn child. |
| <b>STOT-single exposure:</b>  | Not classified                            |

|   |   |
|---|---|
| <b>quartz, conc respirable crystalline silica≥10% (14808-60-7)</b>    |   |
| STOT-repeated exposure  | Causes damage to organs through prolonged or repeated exposure.   |
| <b>Vinyltrimethoxysilane (2768-02-7)</b>                              |   |
| NOAEL (oral, rat, 90 days)  | 62.5 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) |
| <b>1,2-Ethanediamine, N1-[3-(trimethoxysilyl)propyl]- (1760-24-3)</b> |   |
| STOT-single exposure  | May cause respiratory irritation.   |

**1,2-Ethanediamine, N1-[3-(trimethoxysilyl)propyl]- (1760-24-3)**

|   |  |
|---|--|
| NOAEL (oral, rat, 90 days)                      | ≥ 500 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) |
| NOAEL (dermal, rat/rabbit, 90 days)             | ≥ 1545 mg/kg body weight Animal: rat   |
| Dibutyl bis(2,4-pentanedionate)tin (22673-19-4) |  |
| STOT-repeated exposure                          | Causes damage to organs through prolonged or repeated exposure.  |

**quartz, conc respirable crystalline silica≥10% (14808-60-7)**

|                      |                        |
|----------------------|------------------------|
| Viscosity, kinematic | Not applicable (solid) |
|----------------------|------------------------|

**Vinyltrimethoxysilane (2768-02-7)**

|                      |                                |
|----------------------|--------------------------------|
| Viscosity, kinematic | 0.7 mm <sup>2</sup> /s (20 °C) |
|----------------------|--------------------------------|

|   |  |
|---|--|
| <b>1,2-Ethanediamine, N1-[3-(trimethoxysilyl)propyl]- (1760-24-3)</b> |  |
| Viscosity, kinematic  | 3.1 mm <sup>2</sup> /s (20 °C, Calculated) |

|  |  |
|--|--|
| <b>Dibutyl bis(2,4-pentanedionate)tin (22673-19-4)</b> |  |
|--|--|

**Aspiration hazard:** Not classified

**Symptoms/effects after inhalation:** Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.

**Symptoms/effects after skin contact:** May cause an allergic skin reaction.

**Symptoms/effects after eye contact:** Eye irritation.

**Symptoms/effects after ingestion:** None under normal conditions.

**Chronic symptoms:** May damage fertility or the unborn child.

## SECTION 12. ECOLOGICAL INFORMATION

### Toxicity

#### Ecology - general:

The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

#### Hazardous to the aquatic environment, short term:

Not classified

#### Hazardous to the aquatic environment, long-term:

Not classified.

#### **Vinyltrimethoxysilane (2768-02-7)**

|                      |   |
|----------------------|---|
| LC50 - Fish [1]      | 191 mg/l (96 h, Oncorhynchus mykiss, Fresh water, Experimental value, Nominal concentration)                    |
| EC50 - Crustacea [1] | 169 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect) |
| ErC50 algae          | > 89 mg/l (72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)          |
| EC50 72h - Algae [1] | > 957 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)           |
| NOEC (chronic)       | 28.1 mg/l Test organisms (species): Daphnia magna Duration: '21 d'  |

#### **Vinyltrimethoxysilane (2768-02-7)**

|                    |  |
|--------------------|--|
| NOEC chronic algae | 10 mg/l  |
| LOEC (chronic)     | 52.4 mg/l Test organisms (species): Daphnia magna Duration: '21 d' |

#### **1,2-Ethanediamine, N1-[3-(trimethoxysilyl)propyl]- (1760-24-3)**

|                      |   |
|----------------------|---|
| LC50 - Fish [1]      | 597 mg/l (EU Method C.1, 96 h, Danio rerio, Semi-static system, Fresh water, Experimental value, GLP)                                   |
| EC50 - Crustacea [1] | 81 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)                          |
| ErC50 algae          | 8.8 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Selenastrum capricornutum, Static system, Fresh water, Experimental value, GLP) |
| EC50 72h - Algae [1] | 126 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)                                     |
| EC50 72h - Algae [2] | 352 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)                                     |

#### **Dibutyl bis(2,4-pentanedionate)tin (22673-19-4)**

|                      |                         |
|----------------------|-------------------------|
| LC50 - Fish [1]      | > 2 mg/l Source: ECHA   |
| EC50 - Crustacea [1] | 0.004 mg/l Source: ECHA |
| EC50 72h - Algae [1] | > 2 mg/l Source: ECHA   |

#### **Titanium oxide (TiO2) (13463-67-7)**

|                      |   |
|----------------------|---|
| LC50 - Fish [1]      | > 1000 mg/l (Pisces, Fresh water, Literature study)   |
| EC50 - Crustacea [1] | > 1000 mg/l (Invertebrata, Fresh water, Literature study)   |
| EC50 72h - Algae [1] | > 100 mg/l (OECD 201: Alga, Growth Inhibition Test, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Growth rate) |

## Persistence and degradability

|  |                                     |
|--|-------------------------------------|
| <b>52RDSL White</b>  |                                     |
| Persistence and degradability  | Not rapidly degradable              |
| <b>quartz, conc respirable crystalline silica<math>\geq</math>10% (14808-60-7)</b> |                                     |
| Persistence and degradability  | Biodegradability: not applicable.   |
| Chemical oxygen demand (COD)   | Not applicable (inorganic)          |
| ThOD   | Not applicable (inorganic)          |
| <b>Vinyltrimethoxysilane (2768-02-7)</b>   |                                     |
| Persistence and degradability  | Not readily biodegradable in water. |
| <b>1,2-Ethanediamine, N1-[3-(trimethoxysilyl)propyl]- (1760-24-3)</b>              |                                     |
| Persistence and degradability  | Not readily biodegradable in water. |
| <b>Dibutyl bis(2,4-pentanedionate)tin (22673-19-4)</b>                             |                                     |
| Persistence and degradability  | Not readily biodegradable in water. |
| <b>Titanium oxide (TiO<sub>2</sub>) (13463-67-7)</b>                               |                                     |
| Persistence and degradability  | Biodegradability: not applicable.   |
| <b>Titanium oxide (TiO<sub>2</sub>) (13463-67-7)</b>                               |                                     |
| Chemical oxygen demand (COD)   | Not applicable (inorganic)          |
| ThOD   | Not applicable (inorganic)          |

## Bioaccumulative potential

|  |  |
|--|--|
| <b>quartz, conc respirable crystalline silica<math>\geq</math>10% (14808-60-7)</b> |  |
| Bioaccumulative potential  | Bioaccumulation: not applicable.                       |
| <b>Vinyltrimethoxysilane (2768-02-7)</b>   |  |
| Bioaccumulative potential  | Low potential for bioaccumulation (Log Kow < 4).       |
| Partition coefficient n-octanol/water (Log Pow)                                    | 1.1 (QSAR, KOWWIN, 20 °C)                              |
| <b>1,2-Ethanediamine, N1-[3-(trimethoxysilyl)propyl]- (1760-24-3)</b>              |  |
| Bioaccumulative potential  | Not bioaccumulative.                                   |
| Partition coefficient n-octanol/water (Log Pow)                                    | -0.3 (QSAR, 20 °C)                                     |
| <b>Dibutyl bis(2,4-pentanedionate)tin (22673-19-4)</b>                             |  |
| Bioaccumulative potential  | Low potential for bioaccumulation (BCF < 500).         |
| BCF - Other aquatic organisms [1]  | 100 l/kg (BCFBAF v3.01, Estimated value, Fresh weight) |
| Partition coefficient n-octanol/water (Log Pow)                                    | 0.29 (Estimated value, KOWWIN)                         |
| <b>Titanium oxide (TiO<sub>2</sub>) (13463-67-7)</b>                               |  |
| Bioaccumulative potential  | Not bioaccumulative.                                   |

**Mobility in soil**

|   |  |
|---|--|
| <b>quartz, conc respirable crystalline silica ≥ 10% (14808-60-7)</b>  |  |
| Ecology - soil  | No (test) data on mobility of the substance available.                   |
| <b>Vinyltrimethoxysilane (2768-02-7)</b>                              |  |
| Surface tension   | No data available in the literature                                      |
| Ecology - soil  | Low potential for adsorption in soil.                                    |
| Organic Carbon Normalized Adsorption Coefficient (Log Koc)            | 2.8 (log Koc, SRC PCKOCWIN v2.0, Calculated value)                       |
| <b>1,2-Ethanediamine, N1-[3-(trimethoxysilyl)propyl]- (1760-24-3)</b> |  |
| Surface tension   | No data available in the literature                                      |
| Ecology - soil  | Low potential for mobility in soil.                                      |
| Organic Carbon Normalized Adsorption Coefficient (Log Koc)            | 3.5 (log Koc, SRC PCKOCWIN v2.0, Calculated value)                       |
| <b>Dibutyl bis(2,4-pentanedionate)tin (22673-19-4)</b>                |  |
| Surface tension   | 33.05 mN/m (20 °C, 92 %, OECD 115: Surface Tension of Aqueous Solutions) |
| Ecology - soil  | Low potential for mobility in soil.                                      |
| Organic Carbon Normalized Adsorption Coefficient (Log Koc)            | 3.942 (log Koc, SRC PCKOCWIN v2.0, Calculated value)                     |
| <b>Titanium oxide (TiO<sub>2</sub>) (13463-67-7)</b>                  |  |
| Surface tension   | No data available in the literature                                      |
| Ecology - soil  | Low potential for mobility in soil.                                      |

**Other adverse effects****Ozone**

Not classified

**SECTION 13. DISPOSAL CONSIDERATIONS**

|  |   |
|--|---|
| <b>Regional waste regulation:</b>                  | Disposal must be done according to official regulations.                                    |
| <b>Waste treatment methods:</b>                    | Dispose of contents/container in accordance with licensed collector's sorting instructions. |
| <b>Sewage disposal recommendations:</b>            | Disposal must be done according to official regulations.                                    |
| <b>Product/Packaging disposal recommendations:</b> | Disposal must be done according to official regulations.                                    |
| <b>Additional information:</b>                     | Do not re-use empty containers.   |

**SECTION 14. TRANSPORT INFORMATION**

In accordance with TDG / DOT / IMDG / IATA

**UN proper shipping name**

|                             |               |
|-----------------------------|---------------|
| Proper Shipping Name (TDG)  | Not regulated |
| Proper Shipping Name (DOT)  | Not regulated |
| Proper Shipping Name (IMDG) | Not regulated |
| Proper Shipping Name (IATA) | Not regulated |

**Transport hazard class(es)****TDG**

Transport hazard class(es) (TDG) Not regulated

**DOT**

Transport hazard class(es) (DOT) Not regulated

**IMDG**

Transport hazard class(es) (IMDG) Not regulated

**IATA**

Transport hazard class(es) (IATA) Not regulated

**Packing group**

Packing group (TDG) : Not regulated

Packing group (DOT) : Not regulated

Packing group (IMDG) : Not regulated

Packing group (IATA) : Not regulated

**Environmental hazards**

Other information : No supplementary information available.

**SECTION 15. REGULATORY INFORMATION****National regulations****Vinyltrimethoxysilane (2768-02-7)**

Listed on the Canadian DSL (Domestic Substances List)

**1,2-Ethanediamine, N1-[3-(trimethoxysilyl)propyl]- (1760-24-3)**

Listed on the Canadian DSL (Domestic Substances List)

**Dibutyl bis(2,4-pentanedionate) tin (22673-19-4)**

Listed on the Canadian DSL (Domestic Substances List)

**Titanium oxide (TiO<sub>2</sub>) (13463-67-7)**

Listed on the Canadian DSL (Domestic Substances List)

**International regulations****Vinyltrimethoxysilane (2768-02-7)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

**1,2-Ethanediamine, N1-[3-(trimethoxysilyl)propyl]- (1760-24-3)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

**Dibutyl bis(2,4-pentanedionate)tin (22673-19-4)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

**Titanium oxide (TiO<sub>2</sub>) (13463-67-7)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active  
Listed on INSQ (Mexican National Inventory of Chemical Substances)

## SECTION 16. OTHER INFORMATION

### Full text of hazard classes and H-statements:

|      |  |
|------|--|
| H317 | May cause an allergic skin reaction                            |
| H318 | Causes serious eye damage                                      |
| H319 | Causes serious eye irritation                                  |
| H332 | Harmful if inhaled   |
| H335 | May cause respiratory irritation                               |
| H341 | Suspected of causing genetic defects                           |
| H350 | May cause cancer   |
| H351 | Suspected of causing cancer                                    |
| H360 | May damage fertility or the unborn child                       |
| H372 | Causes damage to organs through prolonged or repeated exposure |

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