

# SAFETY DATA SHEET

# ARBO

Arbosil One

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

**Product name** : Arbosil One  
**Product description** : Sealants  
**Other means of identification** : Not available.

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

| Identified uses                     |        |
|-------------------------------------|--------|
| Sealants                            |        |
| Uses advised against                | Reason |
| Use only for intended applications. |        |

### 1.3 Details of the supplier of the safety data sheet

Adshead Ratcliffe & Co. Ltd.  
Derby Road, Belper  
Derbyshire.  
DE56 1WJ  
+44 (0)1773 826661

**e-mail address of person responsible for this SDS** : SDSQueries@carlisleccm.com

### 1.4 Emergency telephone number

#### National advisory body/Poison Center

**Telephone number** : National Poisons Information Service (NPIS)  
Tel: 0344 892 0111 (for healthcare professionals only)  
Website: <http://www.npis.org/>  
Members of Public in England, Scotland and Wales can contact NHS 111/NHS 24 by dialling 111. In Northern Ireland contact your local GP.

#### Supplier

**Telephone number** : +44 (0)1773 826661  
(Office hours: 8.30 - 17.00)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

#### Classification according to UK CLP/GHS

Eye Irrit. 2, H319  
Skin Sens. 1, H317

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

**SECTION 2: Hazards identification****Hazard pictograms**

:

**Signal word**

: Warning

**Hazard statements**: H317 - May cause an allergic skin reaction.  
H319 - Causes serious eye irritation.**Precautionary statements****Prevention**

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

**Response**: P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention.  
P362 - Take off contaminated clothing and wash before reuse.  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337 + P313 - If eye irritation persists: Get medical advice or attention.**Storage**

: Not applicable.

**Disposal**

: Not applicable.

**Supplemental label elements**

: Not applicable.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles**

: Not applicable.

**Special packaging requirements****Containers to be fitted with child-resistant fastenings**

: Not applicable.

**Tactile warning of danger**

: Not applicable.

**2.3 Other hazards****Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII**

: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**Other hazards which do not result in classification**

: None known.

**SECTION 3: Composition/information on ingredients****3.2 Mixtures**

: Mixture

| Product/ingredient name                                           | Identifiers                                                                            | %         | Classification                                                  | Type |
|-------------------------------------------------------------------|----------------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------|------|
| Limestone                                                         | EC: 215-279-6<br>CAS: 1317-65-3                                                        | ≥25 - ≤50 | Not classified.                                                 | [2]  |
| Silane, dichlorodimethyl-, reaction products with silica          | REACH #:<br>01-2119379499-16<br>EC: 271-893-4<br>CAS: 68611-44-9                       | ≤5        | Not classified.                                                 | [2]  |
| magnesium carbonate                                               | EC: 208-915-9<br>CAS: 546-93-0                                                         | ≤5        | Not classified.                                                 | [2]  |
| trimethoxyvinylsilane                                             | REACH #:<br>01-2119513215-52<br>EC: 220-449-8<br>CAS: 2768-02-7<br>Index: 014-049-00-0 | ≤5        | Flam. Liq. 3, H226<br>Acute Tox. 4, H332<br>Skin Sens. 1B, H317 | [1]  |
| bis(ethyl acetoacetato-O1',O3)bis(2-methylpropan-1-olato)titanium | REACH #:<br>01-2119968551-31                                                           | <3        | Flam. Liq. 3, H226<br>Skin Irrit. 2, H315                       | [1]  |

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**SECTION 3: Composition/information on ingredients**

|                     |                                                      |      |                                                                                                                                                                   |         |
|---------------------|------------------------------------------------------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| 2-methylpropan-1-ol | EC: 281-161-6<br>CAS: 83877-91-2                     |      | Eye Dam. 1, H318<br>STOT SE 3, H335<br>STOT SE 3, H336<br>Flam. Liq. 3, H226<br>Acute Tox. 4, H332<br>Skin Irrit. 2, H315                                         | [1] [2] |
| methanol            | EC: 201-148-0<br>CAS: 78-83-1<br>Index: 603-108-00-1 | ≤0.1 | Eye Dam. 1, H318<br>STOT SE 3, H335<br>STOT SE 3, H336<br>Flam. Liq. 2, H225<br>Acute Tox. 3, H301<br>Acute Tox. 3, H311<br>Acute Tox. 3, H331<br>STOT SE 1, H370 | [1] [2] |
|                     | EC: 200-659-6<br>CAS: 67-56-1<br>Index: 603-001-00-X | <0.1 | <b>See Section 16 for the full text of the H statements declared above.</b>                                                                                       |         |

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

**SECTION 4: First aid measures****4.1 Description of first aid measures**

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

**4.2 Most important symptoms and effects, both acute and delayed**Over-exposure signs/symptoms

**SECTION 4: First aid measures**

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness
- Ingestion** : No specific data.

**4.3 Indication of any immediate medical attention and special treatment needed**

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

**SECTION 5: Firefighting measures****5.1 Extinguishing media**

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

**5.2 Special hazards arising from the substance or mixture**

- Hazards from the substance or mixture** : No specific fire or explosion hazard.
- Hazardous combustion products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
halogenated compounds  
metal oxide/oxides

**5.3 Advice for firefighters**

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to British standard BS EN 469 will provide a basic level of protection for chemical incidents.

**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**6.2 Environmental precautions**

- : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

## SECTION 6: Accidental release measures

### 6.3 Methods and materials for containment and cleaning up

- Small spill** : Move containers from spill area. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor.

- 6.4 Reference to other sections** : See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

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

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

### 7.3 Specific end use(s)

- Recommendations** : Not available.
- Industrial sector specific solutions** : Not available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

| Product/ingredient name                                  | Exposure limit values                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Limestone                                                | <b>EH40/2005 WELs (United Kingdom (UK), 1/2020) [limestone]</b><br>TWA 8 hours: 10 mg/m <sup>3</sup> . Form: total inhalable.<br>TWA 8 hours: 4 mg/m <sup>3</sup> . Form: respirable.<br><b>EH40/2005 WELs (United Kingdom (UK), 1/2020) [calcium carbonate]</b><br>TWA 8 hours: 10 mg/m <sup>3</sup> . Form: inhalable dust.<br>TWA 8 hours: 4 mg/m <sup>3</sup> . Form: Respirable dust. |
| Silane, dichlorodimethyl-, reaction products with silica | <b>EH40/2005 WELs (United Kingdom (UK), 1/2020)</b><br>TWA 8 hours: 2.4 mg/m <sup>3</sup> . Form: Respirable dust.<br>TWA 8 hours: 6 mg/m <sup>3</sup> . Form: inhalable dust.                                                                                                                                                                                                             |
| magnesium carbonate                                      | <b>EH40/2005 WELs (United Kingdom (UK), 1/2020)</b>                                                                                                                                                                                                                                                                                                                                        |

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**SECTION 8: Exposure controls/personal protection**

|                     |                                                                                                                                                                                                                                                                                                                       |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2-methylpropan-1-ol | TWA 8 hours: 10 mg/m <sup>3</sup> . Form: inhalable dust.<br>TWA 8 hours: 4 mg/m <sup>3</sup> . Form: Respirable dust.<br><b>EH40/2005 WELs (United Kingdom (UK), 1/2020)</b><br>STEL 15 minutes: 231 mg/m <sup>3</sup> .<br>STEL 15 minutes: 75 ppm.<br>TWA 8 hours: 154 mg/m <sup>3</sup> .<br>TWA 8 hours: 50 ppm. |
| methanol            | <b>EH40/2005 WELs (United Kingdom (UK), 1/2020)</b> Absorbed through skin.<br>STEL 15 minutes: 333 mg/m <sup>3</sup> .<br>STEL 15 minutes: 250 ppm.<br>TWA 8 hours: 266 mg/m <sup>3</sup> .<br>TWA 8 hours: 200 ppm.                                                                                                  |

**Biological exposure indices**

No exposure indices known.

**Recommended monitoring procedures** : Reference should be made to monitoring standards, such as the following: British Standard BS EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) British Standard BS EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) British Standard BS EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**DNELs/DMELs****Product/ingredient name**

magnesium carbonate

**Result****DNEL - General population - Short term - Oral**

7.23 mg/kg bw/day

Effects: Systemic**DNEL - General population - Long term - Oral**

7.23 mg/kg bw/day

Effects: Systemic

trimethoxyvinylsilane

**DNEL - General population - Long term - Oral**

0.63 mg/kg bw/day

Effects: Systemic**DNEL - General population - Long term - Dermal**

0.63 mg/kg bw/day

Effects: Systemic**DNEL - Workers - Long term - Dermal**

0.91 mg/kg bw/day

Effects: Systemic**DNEL - General population - Long term - Inhalation**6.8 mg/m<sup>3</sup>Effects: Systemic**DNEL - Workers - Long term - Inhalation**27.6 mg/m<sup>3</sup>Effects: Systemic**DNEL - General population - Short term - Inhalation**54.4 mg/m<sup>3</sup>Effects: Systemic**DNEL - Workers - Short term - Inhalation**73.6 mg/m<sup>3</sup>Effects: Systemic

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SECTION 8: Exposure controls/personal protection

|                                                                       |                                                                                                        |
|-----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| bis(ethyl acetoacetato-O1',O3)bis<br>(2-methylpropan-1-olato)titanium | <b>DNEL - General population - Long term - Oral</b><br>22 mg/kg bw/day<br><u>Effects</u> : Systemic    |
|                                                                       | <b>DNEL - General population - Long term - Dermal</b><br>220 mg/kg bw/day<br><u>Effects</u> : Systemic |
|                                                                       | <b>DNEL - Workers - Long term - Inhalation</b><br>254 mg/m³<br><u>Effects</u> : Systemic               |
| 2-methylpropan-1-ol                                                   | <b>DNEL - General population - Long term - Inhalation</b><br>303 mg/m³<br><u>Effects</u> : Systemic    |
|                                                                       | <b>DNEL - General population - Long term - Inhalation</b><br>55 mg/m³<br><u>Effects</u> : Local        |
|                                                                       | <b>DNEL - Workers - Long term - Inhalation</b><br>310 mg/m³<br><u>Effects</u> : Local                  |
| methanol                                                              | <b>DNEL - General population - Short term - Oral</b><br>4 mg/kg bw/day<br><u>Effects</u> : Systemic    |
|                                                                       | <b>DNEL - General population - Long term - Oral</b><br>4 mg/kg bw/day<br><u>Effects</u> : Systemic     |
|                                                                       | <b>DNEL - General population - Short term - Dermal</b><br>4 mg/kg bw/day<br><u>Effects</u> : Systemic  |
|                                                                       | <b>DNEL - General population - Long term - Dermal</b><br>4 mg/kg bw/day<br><u>Effects</u> : Systemic   |
|                                                                       | <b>DNEL - Workers - Short term - Dermal</b><br>20 mg/kg bw/day<br><u>Effects</u> : Systemic            |
|                                                                       | <b>DNEL - Workers - Long term - Dermal</b><br>20 mg/kg bw/day<br><u>Effects</u> : Systemic             |
|                                                                       | <b>DNEL - General population - Short term - Inhalation</b><br>26 mg/m³<br><u>Effects</u> : Local       |
|                                                                       | <b>DNEL - General population - Long term - Inhalation</b><br>26 mg/m³<br><u>Effects</u> : Local        |
|                                                                       | <b>DNEL - General population - Short term - Inhalation</b><br>26 mg/m³<br><u>Effects</u> : Systemic    |
|                                                                       | <b>DNEL - General population - Long term - Inhalation</b><br>26 mg/m³<br><u>Effects</u> : Systemic     |
|                                                                       |                                                                                                        |
|                                                                       |                                                                                                        |

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SECTION 8: Exposure controls/personal protection

DNEL - Workers - Short term - Inhalation

130 mg/m³

Effects: Local

DNEL - Workers - Long term - Inhalation

130 mg/m³

Effects: Local

DNEL - Workers - Short term - Inhalation

130 mg/m³

Effects: Systemic

DNEL - Workers - Long term - Inhalation

130 mg/m³

Effects: Systemic

PNECs

Product/ingredient name

trimethoxyvinylsilane

Result

Fresh water

0.4 mg/l

Fresh water

1.21 mg/l

Marine water

0.04 mg/l

Fresh water sediment

1.5 mg/kg dwt

Marine water sediment

0.15 mg/kg dwt

Soil

0.06 mg/kg dwt

bis(ethyl acetoacetato-O1',O3)bis  
(2-methylpropan-1-olato)titanium

Fresh water

0.1 mg/l

Fresh water

1 mg/l

Marine water

0.01 mg/l

Sewage Treatment Plant

28 mg/l

Fresh water sediment

0.082 mg/kg dwt

Marine water sediment

0.0082 mg/kg dwt

Soil

0.019 mg/kg dwt

8.2 Exposure controls

Appropriate engineering controls

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

## SECTION 8: Exposure controls/personal protection

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### 9.1 Information on basic physical and chemical properties

#### Appearance

- Physical state** : Solid. [paste]
- Color** : Various
- Odor** : Characteristic.
- Odor threshold** : Not available.
- Melting point/freezing point** : Not available.
- Initial boiling point and boiling range** : Not available.
- Flammability (solid, gas)** : Not available.
- Upper/lower flammability or explosive limits** : Not applicable.
- Flash point** : Not applicable.
- Auto-ignition temperature** : Not applicable.
- Decomposition temperature** : Not available.
- pH** : Not applicable.
- Viscosity** : Dynamic (room temperature): Not available.  
Kinematic (room temperature): Not available.  
Kinematic (40°C): Not available.

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SECTION 9: Physical and chemical properties

|                                         |                   |
|-----------------------------------------|-------------------|
| Solubility in water                     | : Not available.  |
| Miscible with water                     | : No.             |
| Partition coefficient: n-octanol/ water | : Not applicable. |
| Vapor pressure                          | : Not available.  |
| Evaporation rate                        | : Not available.  |
| Relative density                        | : 1.34            |
| Vapor density                           | : Not applicable. |
| Explosive properties                    | : Not available.  |
| Oxidizing properties                    | : Not available.  |
| Particle characteristics                |                   |
| Median particle size                    | : Not available.  |

9.2 Other information

Not available.

SECTION 10: Stability and reactivity

|                                         |                                                                                                        |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------|
| 10.1 Reactivity                         | : No specific test data related to reactivity available for this product or its ingredients.           |
| 10.2 Chemical stability                 | : The product is stable.                                                                               |
| 10.3 Possibility of hazardous reactions | : Under normal conditions of storage and use, hazardous reactions will not occur.                      |
| 10.4 Conditions to avoid                | : No specific data.                                                                                    |
| 10.5 Incompatible materials             | : No specific data.                                                                                    |
| 10.6 Hazardous decomposition products   | : Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

SECTION 11: Toxicological information

|                                                          |                                                                                                                                                                                                                                                                       |
|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11.1 Information on toxicological effects                |                                                                                                                                                                                                                                                                       |
| <u>Acute toxicity</u>                                    |                                                                                                                                                                                                                                                                       |
| Product/ingredient name                                  | Result                                                                                                                                                                                                                                                                |
| Silane, dichlorodimethyl-, reaction products with silica | <b>Rat - Oral - LD50</b><br>>5000 mg/kg<br><br><b>Rat - Inhalation - LC50 Vapor</b><br>450 mg/m³ [4 hours]<br>Toxic effects: Behavioral - Somnolence (general depressed activity) Lung, Thorax, or Respiration - Dyspnea Lung, Thorax, or Respiration - Other changes |
| magnesium carbonate                                      | <b>Rat - Oral - LD50</b><br>8000 mg/kg                                                                                                                                                                                                                                |
| trimethoxyvinylsilane                                    | <b>Rat - Male - Oral - LD50</b><br>6899 mg/kg<br><br><b>Rabbit - Female - Dermal - LD50</b><br>3158 mg/kg<br><br><b>Rat - Inhalation - LC50 Vapor</b><br>16.8 mg/l [4 hours]                                                                                          |

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SECTION 11: Toxicological information

|                                                                       |                                                                                                                                                                                                                                 |
|-----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| bis(ethyl acetoacetato-O1',O3)bis<br>(2-methylpropan-1-olato)titanium | <b>Rat - Oral - LD50</b><br>>2000 mg/kg                                                                                                                                                                                         |
| 2-methylpropan-1-ol                                                   | <b>Rat - Oral - LD50</b><br>2460 mg/kg<br><br><b>Rabbit - Dermal - LD50</b><br>3400 mg/kg<br><br><b>Rat - Inhalation - LC50 Vapor</b><br>19200 mg/m³ [4 hours]                                                                  |
| methanol                                                              | <b>Rabbit - Dermal - LD50</b><br>15800 mg/kg<br><br><b>Rat - Oral - LD50</b><br>5600 mg/kg<br><br><b>Rat - Inhalation - LC50 Gas.</b><br>64000 ppm [4 hours]<br><br><b>Rat - Inhalation - LC50 Gas.</b><br>145000 ppm [1 hours] |

Conclusion/Summary [Product] : Not available.

Acute toxicity estimates

| Product/ingredient name | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapors) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|-------------------------|--------------|----------------|--------------------------|----------------------------|-------------------------------------|
| Arbosil One             | N/A          | N/A            | N/A                      | 521.2                      | N/A                                 |
| magnesium carbonate     | 8000         | N/A            | N/A                      | N/A                        | N/A                                 |
| trimethoxyvinylsilane   | 6899         | 3158           | N/A                      | 16.8                       | N/A                                 |
| 2-methylpropan-1-ol     | 2460         | 3400           | N/A                      | 19.2                       | N/A                                 |
| methanol                | 100          | 300            | 64000                    | 3                          | N/A                                 |

Skin corrosion/irritation

|                                                         |                                                                                                                                                         |
|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product/ingredient name</b><br>trimethoxyvinylsilane | <b>Result</b><br><b>Rabbit - Skin - Mild irritant</b><br><u>Duration of treatment/exposure:</u> 24 hours<br><u>Amount/concentration applied:</u> 500 mg |
|                                                         | <b>Rabbit - Skin - Not irritant</b><br><u>Duration of treatment/exposure:</u> 24 hours                                                                  |
| methanol                                                | <b>Rabbit - Skin - Moderate irritant</b><br><u>Duration of treatment/exposure:</u> 24 hours<br><u>Amount/concentration applied:</u> 20 mg               |

Conclusion/Summary [Product] : Not available.

Serious eye damage/eye irritation

|                                |               |
|--------------------------------|---------------|
| <b>Product/ingredient name</b> | <b>Result</b> |
|--------------------------------|---------------|

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## SECTION 11: Toxicological information

trimethoxyvinylsilane

### Rabbit - Eyes - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

### Rabbit - Eyes - Not irritant

OECD [Acute Eye Irritation/Corrosion]

Duration of treatment/exposure: 24 hours

methanol

### Rabbit - Eyes - Moderate irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 100 mg

### Rabbit - Eyes - Moderate irritant

Amount/concentration applied: 40 mg

### Rabbit - Eyes - Severe irritant

Amount/concentration applied: 0.1 MI

**Conclusion/Summary [Product]** : Not available.

### Respiratory corrosion/irritation

Not available.

**Conclusion/Summary [Product]** : Not available.

### Respiratory or skin sensitization

#### Product/ingredient name

trimethoxyvinylsilane

#### Result

#### Guinea pig - skin

OECD [Skin Sensitization]

Result: Sensitizing

#### Skin

**Conclusion/Summary [Product]** : Not available.

#### Respiratory

**Conclusion/Summary [Product]** : Not available.

### Germ cell mutagenicity

#### Product/ingredient name

trimethoxyvinylsilane

#### Result

#### In vitro - Bacteria

OECD [Bacterial Reverse Mutation Test]

Result: Negative

**Conclusion/Summary [Product]** : Not available.

### Carcinogenicity

Not available.

**Conclusion/Summary [Product]** : Not available.

### Reproductive toxicity

Not available.

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**SECTION 11: Toxicological information****Conclusion/Summary [Product]** : Not available.**Specific target organ toxicity (single exposure)****Product/ingredient name**bis(ethyl acetoacetato-O1',O3)bis  
(2-methylpropan-1-olato)titanium**Result**

STOT SE 3, H335 (Respiratory tract irritation)

2-methylpropan-1-ol

STOT SE 3, H336 (Narcotic effects)

STOT SE 3, H335 (Respiratory tract irritation)

STOT SE 3, H336 (Narcotic effects)

methanol

STOT SE 1, H370

**Specific target organ toxicity (repeated exposure)**

Not available.

**Aspiration hazard**

Not available.

**Information on the likely routes of exposure**

Not available.

**Potential acute health effects**

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

**Symptoms related to the physical, chemical and toxicological characteristics**

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness
- Ingestion** : No specific data.

**Delayed and immediate effects and also chronic effects from short and long term exposure****Short term exposure****Potential immediate effects** : Not available.**Potential delayed effects** : Not available.**Long term exposure****Potential immediate effects** : Not available.**Potential delayed effects** : Not available.**Potential chronic health effects**

Not available.

**Conclusion/Summary [Product]** : Not available.

- General** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Reproductive toxicity** : No known significant effects or critical hazards.

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SECTION 11: Toxicological information

Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

| Product/ingredient name | Result                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| trimethoxyvinylsilane   | <p><b>Acute - LC50 - Fresh water</b><br/>Fish - <i>Oncorhynchus mykiss</i><br/>191 mg/l [96 hours]</p> <p><b>Acute - EC50 - Fresh water</b><br/>Daphnia - <i>Daphnia magna</i><br/>168.7 mg/l [48 hours]</p> <p><b>Acute - EC50 - Fresh water</b><br/>Algae<br/>&gt;89 mg/l [72 hours]</p>                                                                                                                                                                                                                                                                                                                                                             |
| 2-methylpropan-1-ol     | <p><b>Acute - LC50 - Fresh water</b><br/>Fish - Rainbow trout,donaldson trout - <i>Oncorhynchus mykiss</i><br/><u>Weight</u>: 1.67 g<br/>1330 mg/l [96 hours]<br/><u>Effect</u>: Mortality</p> <p><b>Acute - LC50 - Marine water</b><br/>Crustaceans - Brine shrimp - <i>Artemia salina</i><br/>600 mg/l [48 hours]<br/><u>Effect</u>: Mortality</p> <p><b>Chronic - NOEC - Fresh water</b><br/>Daphnia - Water flea - <i>Daphnia magna</i><br/><u>Age</u>: ≤24 hours<br/>4 mg/l [21 days]<br/><u>Effect</u>: Reproduction</p>                                                                                                                         |
| methanol                | <p><b>Acute - LC50 - Marine water</b><br/>Crustaceans - Common shrimp, sand shrimp - <i>Crangon crangon</i> - Adult<br/>2500 mg/l [48 hours]<br/><u>Effect</u>: Mortality</p> <p><b>Acute - EC50 - Marine water</b><br/>Algae - Green algae - <i>Ulva pertusa</i><br/>16.912 mg/l [96 hours]<br/><u>Effect</u>: Reproduction</p> <p><b>Chronic - NOEC - Marine water</b><br/>Algae - Green algae - <i>Ulva pertusa</i><br/>9.96 mg/l [96 hours]<br/><u>Effect</u>: Reproduction</p> <p><b>Acute - LC50 - Fresh water</b><br/>Fish - Zebra danio - <i>Danio rerio</i> - Egg<br/><u>Age</u>: 12<br/>290 mg/l [96 hours]<br/><u>Effect</u>: Mortality</p> |

Conclusion/Summary [Product] : Not available.

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**SECTION 12: Ecological information****12.2 Persistence and degradability****Product/ingredient name**

trimethoxyvinylsilane

**Result****Aerobic**

OECD [Ready Biodegradability - Manometric Respirometry Test]

51% [28 days] - Not readily

**Conclusion/Summary [Product]** : Not available.

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| trimethoxyvinylsilane   | -                 | -          | Not readily      |

**12.3 Bioaccumulative potential**

| Product/ingredient name | LogP <sub>ow</sub> | BCF | Potential |
|-------------------------|--------------------|-----|-----------|
| trimethoxyvinylsilane   | 1.1                | -   | Low       |
| 2-methylpropan-1-ol     | 1                  | -   | Low       |
| methanol                | -0.77              | <10 | Low       |

**12.4 Mobility in soil****Soil/Water partition coefficient** : Not available.**Mobility** : Not available.**12.5 Results of PBT and vPvB assessment**

| Product/ingredient name                                            | PBT | P   | B   | T  | vPvB | vP  | vB  |
|--------------------------------------------------------------------|-----|-----|-----|----|------|-----|-----|
| Limestone                                                          | No  | No  | No  | No | No   | No  | No  |
| Silane, dichlorodimethyl-, reaction products with silica           | No  | N/A | N/A | No | N/A  | N/A | N/A |
| magnesium carbonate                                                | No  | No  | No  | No | No   | No  | No  |
| trimethoxyvinylsilane                                              | No  | N/A | N/A | No | N/A  | N/A | N/A |
| bis(ethyl acetoacetato-O1', O3)bis(2-methylpropan-1-olato)titanium | No  | N/A | N/A | No | N/A  | N/A | N/A |
| 2-methylpropan-1-ol                                                | No  | N/A | N/A | No | N/A  | N/A | N/A |
| methanol                                                           | No  | N/A | No  | No | No   | N/A | No  |

**12.6 Other adverse effects** : No known significant effects or critical hazards.**SECTION 13: Disposal considerations**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

**13.1 Waste treatment methods****Product****Methods of disposal**

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste**

: The classification of the product may meet the criteria for a hazardous waste.

**Packaging**

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**SECTION 13: Disposal considerations**

**Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

**SECTION 14: Transport information**

|                                        | ADR/RID        | ADN            | IMDG           | IATA           |
|----------------------------------------|----------------|----------------|----------------|----------------|
| <b>14.1 UN number</b>                  | Not available. | Not available. | Not available. | Not available. |
| <b>14.2 UN proper shipping name</b>    | Not available. | Not available. | Not available. | Not available. |
| <b>14.3 Transport hazard class(es)</b> | Not available. | Not available. | Not available. | Not available. |
| <b>14.4 Packing group</b>              | -              | -              | -              | -              |
| <b>14.5 Environmental hazards</b>      | No.            | No.            | No.            | No.            |

**14.6 Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Transport in bulk according to IMO instruments** : Not available.

**SECTION 15: Regulatory information**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**  
[UK \(GB\)/REACH](#)

[Annex XIV - List of substances subject to authorization](#)

[Annex XIV](#)

None of the components are listed.

[Substances of very high concern](#)

None of the components are listed.

[Ozone depleting substances](#)

Not listed.

[Prior Informed Consent \(PIC\)](#)

Not listed.

[Persistent Organic Pollutants](#)

Not listed.

[Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles](#)

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**SECTION 15: Regulatory information**

| Product/ingredient name | %    | Designation [Usage] |
|-------------------------|------|---------------------|
| methanol                | <0.1 | 69                  |

**Labeling** : Not applicable.**Seveso Directive**

This product is not controlled under the Seveso Directive.

**EU regulations****Industrial emissions  
(integrated pollution  
prevention and control) -  
Air** : Not listed**Industrial emissions  
(integrated pollution  
prevention and control) -  
Water** : Not listed**International regulations****Chemical Weapon Convention List Schedules I, II & III Chemicals**

Not listed.

**Montreal Protocol**

Not listed.

**Stockholm Convention on Persistent Organic Pollutants**

Not listed.

**Rotterdam Convention on Prior Informed Consent (PIC)**

Not listed.

**UNECE Aarhus Protocol on POPs and Heavy Metals**

Not listed.

**Inventory list**

**Australia** : Not determined.  
**Canada** : Not determined.  
**China** : Not determined.  
**Eurasian Economic Union** : **Russian Federation inventory**: Not determined.  
**Japan** : **Japan inventory (CSCL)**: Not determined.  
**Japan inventory (ISHL)**: Not determined.  
**New Zealand** : Not determined.  
**Philippines** : Not determined.  
**Republic of Korea** : Not determined.  
**Taiwan** : Not determined.  
**Thailand** : Not determined.  
**Turkey** : Not determined.  
**United States** : Not determined.  
**Viet Nam** : Not determined.

**15.2 Chemical Safety  
Assessment** : This product contains substances for which Chemical Safety Assessments are still required.

**SECTION 16: Other information**

Indicates information that has changed from previously issued version.

**Abbreviations and acronyms**

: ATE = Acute Toxicity Estimate  
 GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments  
 DMEL = Derived Minimal Effect Level  
 DNEL = Derived No Effect Level  
 EUH statement = GB CLP-specific Hazard statement  
 N/A = Not available  
 PBT = Persistent, Bioaccumulative and Toxic  
 PNEC = Predicted No Effect Concentration  
 RRN = REACH Registration Number  
 SGG = Segregation Group  
 vPvB = Very Persistent and Very Bioaccumulative

**Procedure used to derive the classification**

| Classification                           | Justification                            |
|------------------------------------------|------------------------------------------|
| Eye Irrit. 2, H319<br>Skin Sens. 1, H317 | Calculation method<br>Calculation method |

**Full text of abbreviated H statements**

|      |                                      |
|------|--------------------------------------|
| H225 | Highly flammable liquid and vapor.   |
| H226 | Flammable liquid and vapor.          |
| H301 | Toxic if swallowed.                  |
| H311 | Toxic in contact with skin.          |
| H315 | Causes skin irritation.              |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage.           |
| H319 | Causes serious eye irritation.       |
| H331 | Toxic if inhaled.                    |
| H332 | Harmful if inhaled.                  |
| H335 | May cause respiratory irritation.    |
| H336 | May cause drowsiness or dizziness.   |
| H370 | Causes damage to organs.             |

**Full text of classifications**

|               |                                                               |
|---------------|---------------------------------------------------------------|
| Acute Tox. 3  | ACUTE TOXICITY - Category 3                                   |
| Acute Tox. 4  | ACUTE TOXICITY - Category 4                                   |
| Eye Dam. 1    | SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1               |
| Eye Irrit. 2  | SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2               |
| Flam. Liq. 2  | FLAMMABLE LIQUIDS - Category 2                                |
| Flam. Liq. 3  | FLAMMABLE LIQUIDS - Category 3                                |
| Skin Irrit. 2 | SKIN CORROSION/IRRITATION - Category 2                        |
| Skin Sens. 1  | SKIN SENSITIZATION - Category 1                               |
| Skin Sens. 1B | SKIN SENSITIZATION - Category 1B                              |
| STOT SE 1     | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1 |
| STOT SE 3     | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3 |

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**Notice to reader**

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.