# SAFETY DATA SHEET

**DOW FRANCE S.A.S.**

Safety Data Sheet according to Reg. (EU) 2020/878

**Product name: DOWSIL™ PR-1200 RTV Prime Coat Red**

**Revision Date:** 24.06.2022
**Version:** 3.0
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DOW FRANCE S.A.S. encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

**1.1 Product identifier**
**Product name:** DOWSIL™ PR-1200 RTV Prime Coat Red
**UFI**: 5NKS-K0PV-900S-PGFP

**1.2 Relevant identified uses of the substance or mixture and uses advised against**
**Identified uses:** Adhesive, binding agents

**1.3 Details of the supplier of the safety data sheet**
**COMPANY IDENTIFICATION**
DOW FRANCE S.A.S.
23 AVENUE JULES RIMET
93210 LA PLAINE SAINT-DENIS
FRANCE

**Customer Information Number:** (31) 115 67 2626
SDSQuestion@dow.com

**1.4 EMERGENCY TELEPHONE NUMBER**
**24-Hour Emergency Contact:** 00 33 388 736 000
**Local Emergency Contact:** 00 33 388 736 000
**ORFILA:** + 33 (0)1 45 42 59 59

## SECTION 2: HAZARDS IDENTIFICATION

**2.1 Classification of the substance or mixture**

**Classification according to Regulation (EC) No 1272/2008:**
Flammable liquids - Category 2 - H225
Skin irritation - Category 2 - H315
Serious eye damage - Category 1 - H318
Specific target organ toxicity - single exposure - Category 3 - H336
Aspiration hazard - Category 1 - H304
Long-term (chronic) aquatic hazard - Category 2 - H411
For the full text of the H-Statements mentioned in this Section, see Section 16.

### 2.2 Label elements

**Labelling according to Regulation (EC) No 1272/2008:**

**Hazard pictograms**



**Signal word: DANGER**

**Hazard statements**

| | |
|---|---|
| H225 | Highly flammable liquid and vapour. |
| H304 | May be fatal if swallowed and enters airways. |
| H315 | Causes skin irritation. |
| H318 | Causes serious eye damage. |
| H336 | May cause drowsiness or dizziness. |
| H411 | Toxic to aquatic life with long lasting effects. |

**Precautionary statements**

| | |
|---|---|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection. |
| P301 + P310 | IF SWALLOWED: Immediately call a POISON CENTER/ doctor. |
| P305 + P351 + P338 + P310 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER and/or doctor. |
| P331 | Do NOT induce vomiting. |
| P370 + P378 | In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide to extinguish. |
| P391 | Collect spillage. |

**Contains** Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics; Tetra n-Butyl titanate; n-octane

### 2.3 Other hazards

Static-accumulating flammable liquid.
This product contains no substances assessed to be PBT or vPvB at levels of 0.1% or higher.

Endocrine disrupting properties

| | |
|---|---|
| Environment: | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |
| Human Health: | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 |

at levels of 0.1% or higher.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

**Chemical nature:** Inorganic and organic compounds, Mixture
**3.2 Mixtures**

This product is a mixture.

| CASRN / EC-No. / Index-No. | REACH Registration Number | Concentration | Component | Classification: REGULATION (EC) No 1272/2008 |
|---|---|---|---|---|
| **CASRN** – **EC-No.** 920-750-0 **Index-No.** – | 01-2119473851-33 | >= 82,0 - <= 88,0 % | Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics | Flam. Liq. 2; H225<br>Skin Irrit. 2; H315<br>STOT SE 3; H336<br>(Central nervous system)<br>Asp. Tox. 1; H304<br>Aquatic Chronic 2; H411<br><br>Acute toxicity estimate<br>Acute oral toxicity:<br>> 5 000 mg/kg<br>Acute inhalation toxicity:<br>> 5,61 mg/l, 4 Hour, vapour<br>Acute dermal toxicity:<br>> 2 000 mg/kg |
| **CASRN** 18765-38-3 **EC-No.** 242-560-0 **Index-No.** – | 01-2120761533-55 | >= 4,0 - <= 6,0 % | Tetrakis(2-butoxyethyl) orthosilicate | Skin Irrit. 2; H315<br>STOT RE 2; H373<br>(Blood)<br><br>Acute toxicity estimate<br>Acute oral toxicity:<br>> 2 000 mg/kg<br>Acute dermal toxicity:<br>> 2 000 mg/kg |
| **CASRN** 5593-70-4 **EC-No.** 227-006-8 **Index-No.** – | 01-2119967423-33 | >= 4,0 - <= 6,0 % | Tetra n-Butyl titanate | Flam. Liq. 3; H226<br>Skin Irrit. 2; H315<br>Eye Dam. 1; H318<br>STOT SE 3; H336<br>(Central nervous system)<br>STOT SE 3; H335<br>(Respiratory system)<br><br>Acute toxicity estimate<br>Acute oral toxicity:<br>4 220 mg/kg<br>Acute inhalation toxicity:<br>11 mg/l, 4 Hour, dust/mist |

| | | | | |
|---|---|---|---|---|
| | | | | Acute dermal toxicity:<br>5 300 mg/kg |
| **CASRN**<br>111-65-9<br>**EC-No.**<br>203-892-1<br>**Index-No.**<br>601-009-00-8 | _ | <= 1,4 % | n-octane | Flam. Liq. 2; H225<br>Skin Irrit. 2; H315<br>STOT SE 3; H336<br>(Central nervous system)<br>Asp. Tox. 1; H304<br>Aquatic Acute 1; H400<br>Aquatic Chronic 1; H410<br><br>M-Factor (Acute aquatic toxicity): 1<br>M-Factor (Chronic aquatic toxicity): 1<br><br>Acute toxicity estimate<br>Acute oral toxicity:<br>> 5 000 mg/kg<br>Acute inhalation toxicity:<br>> 24,88 mg/l, 4 Hour, vapour<br>Acute dermal toxicity:<br>> 2 000 mg/kg |

For the full text of the H-Statements mentioned in this Section, see Section 16.

## SECTION 4: FIRST AID MEASURES

**4.1 Description of first aid measures**
**General advice:**
First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

**Inhalation:** Move person to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask, etc). If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

**Skin contact:** Wash off with plenty of water. Suitable emergency safety shower facility should be available in work area.

**Eye contact:** Wash immediately and continuously with flowing water for at least 30 minutes. Remove contact lenses after the first 5 minutes and continue washing. Obtain prompt medical consultation, preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available.

**Ingestion:** Do not induce vomiting. Call a physician and/or transport to emergency facility immediately.

**4.2 Most important symptoms and effects, both acute and delayed:**
May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye damage. May cause drowsiness or dizziness.

**4.3 Indication of any immediate medical attention and special treatment needed**
**Notes to physician:** Maintain adequate ventilation and oxygenation of the patient. May cause asthma-like (reactive airways) symptoms. Bronchodilators, expectorants, antitussives and corticosteroids may be of help. Chemical eye burns may require extended irrigation. Obtain prompt consultation, preferably from an ophthalmologist. If burn is present, treat as any thermal burn, after decontamination. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. The decision of whether to induce vomiting or not should be made by a physician. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Repeated excessive exposure may aggravate preexisting lung disease. Skin contact may aggravate preexisting dermatitis.

## SECTION 5: FIREFIGHTING MEASURES

**5.1 Extinguishing media**

**Suitable extinguishing media:** Alcohol-resistant foam. Carbon dioxide (CO2). Dry chemical. Dry sand.

**Unsuitable extinguishing media:** High volume water jet. Do not use direct water stream..

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

**Hazardous combustion products:** Silicon oxides. Formaldehyde. Carbon oxides. Metal oxides.

**Unusual Fire and Explosion Hazards:** Flash back possible over considerable distance.. Exposure to combustion products may be a hazard to health.. Flammable concentrations of vapor can accumulate at temperatures above flash point; see Section 9.. Flammable mixtures may exist within the vapor space of containers at room temperature.. Closed containers may rupture via pressure build-up when exposed to fire or extreme heat.. Vapours may form explosive mixtures with air..

**5.3 Advice for firefighters**

**Fire Fighting Procedures:** Use water spray to cool unopened containers.. Evacuate area.. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage.. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed.. Do not use a solid water stream as it may scatter and spread fire..
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Remove undamaged containers from fire area if it is safe to do so.

**Special protective equipment for firefighters:** In the event of fire, wear self-contained breathing apparatus.. Use personal protective equipment..

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**6.1 Personal precautions, protective equipment and emergency procedures:** Remove all sources of ignition. Ventilate the area. Use personal protective equipment. Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. Ground and bond all containers and handling equipment. Vapor explosion hazard. Keep out of sewers. Follow safe handling advice and personal protective equipment recommendations.

**6.2 Environmental precautions:** Do not release the product to the aquatic environment above defined regulatory levels Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g. by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

**6.3 Methods and materials for containment and cleaning up:** Non-sparking tools should be used. Soak up with inert absorbent material. Suppress (knock down) gases/vapours/mists with a water spray jet. Clean up remaining materials from spill with suitable absorbant. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container.

**6.4 Reference to other sections:**
See sections: 7, 8, 11, 12 and 13.

## SECTION 7: HANDLING AND STORAGE

**7.1 Precautions for safe handling:** Do not get on skin or clothing. Do not breathe vapours or spray mist. Do not swallow. Do not get in eyes. Keep container tightly closed. Keep away from heat and sources of ignition. Take precautionary measures against static discharges. Take care to prevent spills, waste and minimize release to the environment. Non-sparking tools should be used. Handle in accordance with good industrial hygiene and safety practice. CONTAINERS MAY BE HAZARDOUS WHEN EMPTY. Since emptied containers retain product residue follow all (M)SDS and label warnings even after container is emptied.
Use with local exhaust ventilation. Use only in an area equipped with explosion proof exhaust ventilation. Ensure all equipment is electrically grounded before beginning transfer operations. This material can accumulate static charge due to its inherent physical properties and can therefore cause an electrical ignition source to vapors. In order to prevent a fire hazard, as bonding and grounding may be insufficient to remove static electricity, it isnecessary to provide an inert gas purge before beginning transfer operations. Restrict flow velocity in order to reduce the accumulation of static electricity. Ground and bond container and receiving equipment.

**7.2 Conditions for safe storage, including any incompatibilities:** Keep in properly labelled containers. Store locked up. Keep tightly closed. Keep in a cool, well-ventilated place. Store in accordance with the particular national regulations. Keep away from heat and sources of ignition.

Do not store with the following product types: Strong oxidizing agents. Organic peroxides. Flammable solids. Pyrophoric liquids. Pyrophoric solids. Self-heating substances and mixtures. Substances and mixtures, which in contact with water, emit flammable gases. Explosives. Gases.
Unsuitable materials for containers**:** None known.

**7.3 Specific end use(s):** See the technical data sheet on this product for further information.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**8.1 Control parameters**
If exposure limits exist, they are listed below. If no exposure limits are displayed, then no values are applicable.

| Component | Regulation | Type of listing | Value |
|---|---|---|---|
| n-octane | ACGIH | TWA | 300 ppm |
| | FR VLE | VME | 1 450 mg/m3 300 ppm |
| | Further information: Indicative exposure limits: Indicative exposure limits | | |
| propan-1-ol | ACGIH | TWA | 100 ppm |
| | Further information: A4: Not classifiable as a human carcinogen | | |
| | FR VLE | VME | 500 mg/m3 200 ppm |
| | Further information: Indicative exposure limits: Indicative exposure limits | | |
| 1-Butanol | ACGIH | TWA | 20 ppm |
| | FR VLE | VLCT (VLE) | 150 mg/m3 50 ppm |
| | Further information: Indicative exposure limits: Indicative exposure limits | | |
| Ethylene glycol monobutyl ether | ACGIH | TWA | 20 ppm |
| | Further information: A3: Confirmed animal carcinogen with unknown relevance to humans | | |
| | 2000/39/EC | TWA | 98 mg/m3 20 ppm |
| | Further information: skin: Identifies the possibility of significant uptake through the skin; Indicative | | |
| | 2000/39/EC | STEL | 246 mg/m3 50 ppm |
| | Further information: skin: Identifies the possibility of significant uptake through the skin; Indicative | | |
| | FR VLE | VLCT (VLE) | 246 mg/m3 50 ppm |
| | Further information: Skin: Risk of penetration through skin; REL binding: Regulatory binding exposure limits | | |
| | FR VLE | VME | 49 mg/m3 10 ppm |
| | Further information: Skin: Risk of penetration through skin; REL binding: Regulatory binding exposure limits | | |

The following substance(s), which have Occupational Exposure Limit(s) (OEL), may be formed during handling or processing:, Ethylene glycol monobutyl ether, Propyl alcohol, butanol

**Biological occupational exposure limits**

| Components | CAS-No. | Control parameters | Biological specimen | Sampling time | Permissible concentration | Basis |
|---|---|---|---|---|---|---|
| Ethylene glycol monobutyl ether | 111-76-2 | Butoxyacetic acid (BAA) | Urine | End of shift (As soon as possible after exposure ceases) | 200 mg/g Creatinine | ACGIH BEI |

**Recommended monitoring procedures**

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with the Occupational Exposure Limits and the adequacy of exposure controls. For some substances biological monitoring may also be appropriate. Validated exposure measurement methods should be applied by a competent person and samples should be analysed by an accredited laboratory.
Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy); European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents); European Standard 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.
Examples of sources of recommended exposure measurement methods are given below or contact the supplier. Further national methods may be available.
National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods.
Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods.
Health and Safety Executive (HSE), United Kingdom: Methods for the Determination of Hazardous Substances.
Institut für Arbeitsschutz Deutschen Gesetzlichen Unfallversicherung (IFA), Germany.
L'Institut National de Recherche et de Securité, (INRS), France.

**Derived No Effect Level**
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics
**Workers**

| ***Acute systemic effects*** | | ***Acute local effects*** | | ***Long-term systemic effects*** | | ***Long-term local effects*** | |
|---|---|---|---|---|---|---|---|
| Dermal | Inhalation | Dermal | Inhalation | Dermal | Inhalation | Dermal | Inhalation |
| n.a. | 1286,4 mg/m3 | n.a. | 1066,67 mg/m3 | n.a. | 1,9 mg/m3 | n.a. | 837,5 mg/m3 |

**Consumers**

| ***Acute systemic effects*** | | | ***Acute local effects*** | | ***Long-term systemic effects*** | | | ***Long-term local effects*** | |
|---|---|---|---|---|---|---|---|---|---|
| Dermal | Inhalation | Oral | Dermal | Inhalation | Dermal | Inhalation | Oral | Dermal | Inhalation |
| n.a. | 1152 mg/m3 | n.a. | n.a. | 640 mg/m3 | n.a. | 0,41 mg/m3 | n.a. | n.a. | 178,57 mg/m3 |

Tetrakis(2-butoxyethyl) orthosilicate
**Workers**

| ***Acute systemic effects*** | | ***Acute local effects*** | | ***Long-term systemic effects*** | | ***Long-term local effects*** | |
|---|---|---|---|---|---|---|---|
| Dermal | Inhalation | Dermal | Inhalation | Dermal | Inhalation | Dermal | Inhalation |
| n.a. | n.a. | n.a. | n.a. | 25 mg/kg bw/day | 44 mg/m3 | n.a. | n.a. |

**Consumers**

| ***Acute systemic effects*** | | | ***Acute local effects*** | | ***Long-term systemic effects*** | | | ***Long-term local effects*** | |
|---|---|---|---|---|---|---|---|---|---|
| Dermal | Inhalation | Oral | Dermal | Inhalation | Dermal | Inhalation | Oral | Dermal | Inhalation |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| n.a. | n.a. | n.a. | n.a. | n.a. | 12,5 mg/kg bw/day | 10,9 mg/m3 | 12,5 mg/kg bw/day | n.a. | n.a. |

Tetra n-Butyl titanate

**Workers**

| ***Acute systemic effects*** | | ***Acute local effects*** | | ***Long-term systemic effects*** | | ***Long-term local effects*** | |
|---|---|---|---|---|---|---|---|
| Dermal | Inhalation | Dermal | Inhalation | Dermal | Inhalation | Dermal | Inhalation |
| n.a. | n.a. | n.a. | n.a. | n.a. | 127 mg/m3 | n.a. | n.a. |

**Consumers**

| ***Acute systemic effects*** | | | ***Acute local effects*** | | ***Long-term systemic effects*** | | | ***Long-term local effects*** | |
|---|---|---|---|---|---|---|---|---|---|
| Dermal | Inhalation | Oral | Dermal | Inhalation | Dermal | Inhalation | Oral | Dermal | Inhalation |
| n.a. | n.a. | n.a. | n.a. | n.a. | 37,5 mg/kg bw/day | 152 mg/m3 | 3,75 mg/kg bw/day | n.a. | n.a. |

n-octane

**Workers**

| ***Acute systemic effects*** | | ***Acute local effects*** | | ***Long-term systemic effects*** | | ***Long-term local effects*** | |
|---|---|---|---|---|---|---|---|
| Dermal | Inhalation | Dermal | Inhalation | Dermal | Inhalation | Dermal | Inhalation |
| n.a. | n.a. | n.a. | n.a. | 773 mg/kg bw/day | 2035 mg/m3 | n.a. | n.a. |

**Consumers**

| ***Acute systemic effects*** | | | ***Acute local effects*** | | ***Long-term systemic effects*** | | | ***Long-term local effects*** | |
|---|---|---|---|---|---|---|---|---|---|
| Dermal | Inhalation | Oral | Dermal | Inhalation | Dermal | Inhalation | Oral | Dermal | Inhalation |
| n.a. | n.a. | n.a. | n.a. | n.a. | 699 mg/kg bw/day | 608 mg/m3 | 699 mg/kg bw/day | n.a. | n.a. |

**Predicted No Effect Concentration**

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

| **Compartment** | **PNEC** |
|---|---|

Tetrakis(2-butoxyethyl) orthosilicate

| **Compartment** | **PNEC** |
|---|---|
| Fresh water | 10 mg/l |
| Marine water | 1 mg/l |
| Sewage treatment plant | 463 mg/l |
| Fresh water sediment | 63,6 mg/kg dry weight (d.w.) |
| Marine sediment | 6,4 mg/kg dry weight (d.w.) |
| Soil | 0,570 mg/kg dry weight (d.w.) |

Tetra n-Butyl titanate

| Compartment | PNEC |
|---|---|
| Fresh water | 0,08 mg/l |
| Marine water | 0,008 mg/l |
| Intermittent use/release | 2,25 mg/l |
| Soil | 0,017 mg/kg dry weight (d.w.) |
| Marine sediment | 0,007 mg/kg |
| Sewage treatment plant | 65 mg/l |
| Fresh water sediment | 0,069 mg/kg |

n-octane

| Compartment | PNEC |
|---|---|
| Fresh water | 0,01 mg/l |
| Intermittent use/release | 0,04 mg/l |
| Marine water | 0,01 mg/l |
| Sewage treatment plant | 0,16 mg/l |
| Fresh water sediment | 4 mg/kg |
| Marine sediment | 4 mg/kg |
| Soil | 1,6 mg/kg |

**8.2 Exposure controls**

**Engineering controls:** Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

**Individual protection measures**

**Eye/face protection:** Use chemical goggles. Chemical goggles should be consistent with EN 166 or equivalent.

**Skin protection**

**Hand protection:** Use chemical resistant gloves classified under Standard EN374: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Chlorinated polyethylene. Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl chloride ("PVC" or "vinyl"). Viton. Polyvinyl alcohol ("PVA"). Examples of acceptable glove barrier materials include: Butyl rubber. When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374) is recommended. Glove thickness alone is not a good indicator of the level of protection a glove provides against a chemical substance as this level of protection is also highly dependent on the specific composition of the material that the glove is fabricated from. The thickness of the glove must, depending on model and type of material, generally be more than 0.35 mm to offer sufficient protection for prolonged and frequent contact with the substance. As an exception to this general rule it is known that multilayer laminate gloves may offer prolonged protection at thicknesses less than 0.35 mm. Other glove materials with a thickness of less than 0.35 mm may offer sufficient protection when only brief contact is expected. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take

into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.
**Other protection:** Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

**Respiratory protection:** Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. In misty atmospheres, use an approved particulate respirator.
Use the following CE approved air-purifying respirator: Organic vapor cartridge with a particulate pre-filter, type AP2 (meeting standard EN 14387).

**Environmental exposure controls**
See SECTION 7: Handling and storage and SECTION 13: Disposal considerations for measures to prevent excessive environmental exposure during use and waste disposal.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**9.1 Information on basic physical and chemical properties**

| | |
|---|---|
| **Appearance** | |
| **Physical state** | liquid |
| **Color** | pink |
| **Odor** | solvent-like |
| **Odor Threshold** | No data available |
| **pH** | Not applicable, substance/mixture is non-soluble (in water) |
| **Melting point/freezing point** | |
| **Melting point/range** | No data available |
| **Freezing point** | not determined |
| **Boiling point or initial boiling point and boiling range** | |
| **Boiling point (760 mmHg)** | > 100 °C |
| **Flash point** | **Tag closed cup** 13 °C |
| **Flammability (solid, gas)** | Not applicable |
| **Flammability (liquids)** | not determined |
| **Lower explosion limit** | No data available |
| **Upper explosion limit** | No data available |
| **Vapor Pressure** | No data available |
| **Relative Vapor Density (air = 1)** | No data available |
| **Relative Density (water = 1)** | 0,76 |
| **Solubility(ies)** | |
| **Water solubility** | insoluble |
| **Partition coefficient: n-octanol/water** | not determined |
| **Auto-ignition temperature** | No data available |
| **Decomposition temperature** | No data available |

| | |
|---|---|
| **Kinematic Viscosity** | 1 mm2/s at 25 °C |
| **Particle characteristics** | |
| **Particle size** | Not applicable |

**9.2 Other information**

| | |
|---|---|
| **Molecular weight** | No data available |
| **Explosive properties** | Not explosive |
| **Oxidizing properties** | The substance or mixture is not classified as oxidizing. |
| **Self-heating substances** | The substance or mixture is not classified as self heating. |
| **Metal corrosion rate** | Not corrosive to metals |
| **Evaporation Rate (Butyl Acetate = 1)** | No data available |

NOTE: The physical data presented above are typical values and should not be construed as a specification.

## SECTION 10: STABILITY AND REACTIVITY

**10.1 Reactivity:** Not classified as a reactivity hazard.

**10.2 Chemical stability:** Stable under normal conditions.

**10.3 Possibility of hazardous reactions:** Can react with strong oxidizing agents. Vapours may form explosive mixture with air. Highly flammable liquid and vapour.

**10.4 Conditions to avoid:** Avoid static discharge. Heat, flames and sparks.

**10.5 Incompatible materials:** Avoid contact with oxidizing materials.

**10.6 Hazardous decomposition products:**
Decomposition products can include and are not limited to: Ethylene glycol monobutyl ether. Propyl alcohol. Butanol.

## SECTION 11: TOXICOLOGICAL INFORMATION

*Toxicological information appears in this section when such data is available.*

**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

**Information on likely routes of exposure**
Inhalation, Eye contact, Skin contact, Ingestion.

**Acute toxicity (represents short term exposures with immediate effects - no chronic/delayed effects known unless otherwise noted)**

**Acute Toxicity Endpoints:**

**Acute oral toxicity**

**Information for the Product:**

Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

As product: Single dose oral LD50 has not been determined.

Based on information for component(s):
LD50, Rat, > 5 000 mg/kg Estimated.

**Information for components:**

**Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics**
For similar material(s): LD50, Rat, male and female, > 5 000 mg/kg OECD 401 or equivalent No deaths occurred at this concentration.

**Tetrakis(2-butoxyethyl) orthosilicate**
LD50, Rat, > 2 000 mg/kg

**Tetra n-Butyl titanate**
LD50, Rat, male, 4 220 mg/kg

**n-octane**
For similar material(s): LD50, Rat, male and female, > 5 000 mg/kg OECD 401 or equivalent

**Acute dermal toxicity**

**Information for the Product:**

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

As product: The dermal LD50 has not been determined.

Based on information for component(s):
LD50, > 2 000 mg/kg Estimated.

**Information for components:**

**Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics**
For similar material(s): LD50, Rabbit, male and female, > 2 000 mg/kg OECD 402 or equivalent No deaths occurred at this concentration.

**Tetrakis(2-butoxyethyl) orthosilicate**
Information taken from reference works and the literature. LD50, Rat, > 2 000 mg/kg

**Tetra n-Butyl titanate**
LD50, Rabbit, 5 300 mg/kg

**n-octane**

For similar material(s): LD50, Rabbit, male and female, > 2 000 mg/kg OECD 402 or equivalent No deaths occurred at this concentration.

**Acute inhalation toxicity**

**Information for the Product:**

Brief exposure (minutes) is not likely to cause adverse effects. Excessive exposure may cause: lung effects Central nervous system depression Mist may cause irritation of upper respiratory tract (nose and throat) and lungs.

As product: The LC50 has not been determined.

**Information for components:**

**Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics**
Brief exposure (minutes) is not likely to cause adverse effects. Excessive exposure may cause: lung effects Central nervous system depression

For similar material(s): LC50, Rat, 4 Hour, vapour, > 5,61 mg/l

**Tetrakis(2-butoxyethyl) orthosilicate**
Brief exposure (minutes) is not likely to cause adverse effects.

**Tetra n-Butyl titanate**
LC50, Rat, 4 Hour, dust/mist, 11 mg/l

**n-octane**
LC50, Rat, male and female, 4 Hour, vapour, > 24,88 mg/l OECD Test Guideline 403 No deaths occurred at this concentration.

**Skin corrosion/irritation**

Causes skin irritation.

**Information for the Product:**

Based on information for component(s):
Brief contact may cause moderate skin irritation with local redness.
Repeated contact may cause skin burns. Symptoms may include pain, severe local redness, swelling, and tissue damage.
May cause pain.
May cause drying and flaking of the skin.

**Information for components:**

**Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics**
For similar material(s):
Brief contact may cause severe skin irritation with pain and local redness.

**Tetrakis(2-butoxyethyl) orthosilicate**
Brief contact may cause moderate skin irritation with local redness.

**Tetra n-Butyl titanate**
Prolonged contact may cause moderate skin irritation with local redness.

**n-octane**
Prolonged contact may cause skin irritation with local redness.
Repeated contact may cause skin burns. Symptoms may include pain, severe local redness, swelling, and tissue damage.
May cause pain.
May cause drying and flaking of the skin.

**Serious eye damage/eye irritation**

Causes serious eye damage.

**Information for the Product:**

Based on information for component(s):
May cause moderate eye irritation.
May cause severe corneal injury.
May cause permanent impairment of vision.

**Information for components:**

**Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics**
For similar material(s):
May cause slight temporary eye irritation.
Corneal injury is unlikely.

**Tetrakis(2-butoxyethyl) orthosilicate**
Essentially nonirritating to eyes.

**Tetra n-Butyl titanate**
May cause moderate eye irritation.
May cause severe corneal injury.
May cause permanent impairment of vision.

**n-octane**
May cause pain disproportionate to the level of irritation to eye tissues.
May cause slight temporary eye irritation.
May cause slight temporary corneal injury.

**Sensitization**

**Information for the Product:**

For skin sensitization:
Contains component(s) which did not cause allergic skin sensitization in guinea pigs.

For respiratory sensitization:
No relevant data found.

**Information for components:**

**Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics**
For skin sensitization:
For similar material(s):
Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:
No relevant data found.

**Tetrakis(2-butoxyethyl) orthosilicate**
For skin sensitization:
Did not cause allergic skin reactions when tested in guinea pigs.

No relevant data found.

**Tetra n-Butyl titanate**
Did not demonstrate the potential for contact allergy in mice.

For respiratory sensitization:
No relevant data found.

**n-octane**
For similar material(s):
Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:
No relevant data found.

**Specific Target Organ Systemic Toxicity (Single Exposure)**

May cause drowsiness or dizziness.

**Information for the Product:**

Product test data not available.

**Information for components:**

**Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics**
May cause drowsiness or dizziness.
Route of Exposure: Inhalation
Target Organs: Central nervous system

**Tetrakis(2-butoxyethyl) orthosilicate**
Evaluation of available data suggests that this material is not an STOT-SE toxicant.

**Tetra n-Butyl titanate**
May cause respiratory irritation.
Route of Exposure: Inhalation
Target Organs: Respiratory Tract
May cause drowsiness or dizziness.
Route of Exposure: Inhalation

Target Organs: Nervous system

**n-octane**
May cause drowsiness or dizziness.
Route of Exposure: Inhalation
Target Organs: Central nervous system

**Aspiration Hazard**

May be fatal if swallowed and enters airways.

**Information for the Product:**

Aspiration into the lungs may occur during ingestion or vomiting, causing lung damage or even death due to chemical pneumonia.

**Information for components:**

**Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics**
May be fatal if swallowed and enters airways.

**Tetrakis(2-butoxyethyl) orthosilicate**
Based on physical properties, not likely to be an aspiration hazard.

**Tetra n-Butyl titanate**
Based on available information, aspiration hazard could not be determined.

**n-octane**
May be fatal if swallowed and enters airways.

**Chronic toxicity (represents longer term exposures with repeated dose resulting in chronic/delayed effects - no immediate effects known unless otherwise noted)**

**Specific Target Organ Systemic Toxicity (Repeated Exposure)**

**Information for the Product:**

Product test data not available.

**Information for components:**

**Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics**
For similar material(s):
Kidney effects have been observed in male rats. These effects are believed to be species specific and unlikely to occur in humans.

**Tetrakis(2-butoxyethyl) orthosilicate**
In animals, effects have been reported on the following organs:
Blood.

**Tetra n-Butyl titanate**
No relevant data found.

**n-octane**
No relevant data found.

**Carcinogenicity**

**Information for the Product:**

Product test data not available.

**Information for components:**

**Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics**
Kidney effects and/or tumors have been observed in male rats. These effects are believed to be species specific and unlikely to occur in humans.

**Tetrakis(2-butoxyethyl) orthosilicate**
No relevant data found.

**Tetra n-Butyl titanate**
No relevant data found.

**n-octane**
No relevant data found.

**Teratogenicity**

**Information for the Product:**

Product test data not available.

**Information for components:**

**Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics**
For similar material(s): Did not cause birth defects or any other fetal effects in laboratory animals.

**Tetrakis(2-butoxyethyl) orthosilicate**
Did not cause birth defects in laboratory animals.

**Tetra n-Butyl titanate**
No relevant data found.

**n-octane**
For similar material(s): Did not cause birth defects in laboratory animals.

**Reproductive toxicity**

**Information for the Product:**

Product test data not available.

**Information for components:**

**Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics**
For similar material(s): In animal studies, did not interfere with reproduction.

**Tetrakis(2-butoxyethyl) orthosilicate**
In laboratory animals, excessive doses toxic to the parent animals caused decreased weight and survival of offspring.

**Tetra n-Butyl titanate**
No relevant data found.

**n-octane**
For similar material(s): In animal studies, did not interfere with reproduction.

**Mutagenicity**

**Information for the Product:**

Product test data not available.

**Information for components:**

**Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics**
For similar material(s): In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.

**Tetrakis(2-butoxyethyl) orthosilicate**
No relevant data found.

**Tetra n-Butyl titanate**
No relevant data found.

**n-octane**
For similar material(s): In vitro genetic toxicity studies were negative.

**11.2 Information on other hazards**

**Endocrine disrupting properties**

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

**Information for components:**

**Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics**
The substance is not considered to have endocrine disrupting properties according to REACH Article 57(f), Commission Regulation (EU) 2018/605 or Commission Delegated Regulation (EU) 2017/2100.

**Tetrakis(2-butoxyethyl) orthosilicate**

The substance is not considered to have endocrine disrupting properties according to REACH Article 57(f), Commission Regulation (EU) 2018/605 or Commission Delegated Regulation (EU) 2017/2100.

**Tetra n-Butyl titanate**
The substance is not considered to have endocrine disrupting properties according to REACH Article 57(f), Commission Regulation (EU) 2018/605 or Commission Delegated Regulation (EU) 2017/2100.

**n-octane**
The substance is not considered to have endocrine disrupting properties according to REACH Article 57(f), Commission Regulation (EU) 2018/605 or Commission Delegated Regulation (EU) 2017/2100.

## SECTION 12: ECOLOGICAL INFORMATION

*Ecotoxicological information appears in this section when such data is available.*

**12.1 Toxicity**

**Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics**

**Acute toxicity to fish**
Material is toxic to aquatic organisms (LC50/EC50/IC50 between 1 and 10 mg/L in the most sensitive species).
LL50, Oncorhynchus mykiss (rainbow trout), semi-static test, 96 Hour, 10 mg/l, OECD Test Guideline 203 or Equivalent

**Acute toxicity to aquatic invertebrates**
EL50, Daphnia magna (Water flea), static test, 48 Hour, 4,5 mg/l, OECD Test Guideline 202 or Equivalent

**Acute toxicity to algae/aquatic plants**
For similar material(s):
EC50, Pseudokirchneriella subcapitata (green algae), 72 Hour, Growth rate, 3,1 mg/l, OECD Test Guideline 201
For similar material(s):
NOELR, Pseudokirchneriella subcapitata (green algae), 72 Hour, Growth rate, 0,5 mg/l, OECD Test Guideline 201

**Chronic toxicity to fish**
For similar material(s):
NOELR, Pimephales promelas (fathead minnow), semi-static test, 14 d, mortality, 2,6 mg/l

**Chronic toxicity to aquatic invertebrates**
Based on data from similar materials
NOELR, Daphnia magna (Water flea), semi-static test, 21 d, number of offspring, 2,6 mg/l

**Tetrakis(2-butoxyethyl) orthosilicate**

**Acute toxicity to fish**
Material is not classified as dangerous to aquatic organisms (LC50/EC50/IC50/LL50/EL50 greater than 100 mg/L in most sensitive species).

LC50, Danio rerio (zebra fish), 96 Hour, > 201 mg/l, OECD Test Guideline 203

**Acute toxicity to aquatic invertebrates**
No toxicity at the limit of solubility
EC50, Daphnia sp. (water flea), 48 Hour, > 90 mg/l, EG 84/449

**Acute toxicity to algae/aquatic plants**
ErC50, Scenedesmus subspicatus, 72 Hour, > 161 mg/l, 88/302/EC

**Tetra n-Butyl titanate**

**Acute toxicity to fish**
No relevant data found.

**n-octane**

**Acute toxicity to fish**
Material is very toxic to aquatic organisms (LC50/EC50/IC50 below 1 mg/L in the most sensitive species).
LC50, Oryzias latipes (Orange-red killifish), 96 Hour, 0,42 mg/l

**Acute toxicity to aquatic invertebrates**
EC50, Daphnia magna (Water flea), 48 Hour, 0,3 mg/l, Method Not Specified.

**Acute toxicity to algae/aquatic plants**
Pseudokirchneriella subcapita, 72 Hour, Growth rate, >1,1 mg/l

**Chronic toxicity to aquatic invertebrates**
Based on data from similar materials
NOEC, Daphnia magna (Water flea), 21 d, 0,17 mg/l

**12.2 Persistence and degradability**

**Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics**

**Biodegradability:** No relevant data found.

**Tetrakis(2-butoxyethyl) orthosilicate**

**Biodegradability:** Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.
10-day Window: Pass
**Biodegradation:** 83 %
**Method:** OECD Test Guideline 301B

**Tetra n-Butyl titanate**

**Biodegradability:** No relevant data found.

**n-octane**

**Biodegradability:** Material is expected to be readily biodegradable.

**Biodegradation:** > 60 %
**Exposure time:** 20 d
**Method:** Other guidelines

**12.3 Bioaccumulative potential**

**Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics**

**Bioaccumulation:** Bioconcentration potential is high (BCF > 3000 or Log Pow between 5 and 7).

**Tetrakis(2-butoxyethyl) orthosilicate**

**Bioaccumulation:** No relevant data found.

**Tetra n-Butyl titanate**

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).
**Partition coefficient: n-octanol/water(log Pow):** 0,88 Estimated.

**n-octane**

**Bioaccumulation:** Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).
**Partition coefficient: n-octanol/water(log Pow):** 5,15 Literature
**Bioconcentration factor (BCF):** 198,7 Mytilus eduli (saltwater mussels) 105 min

**12.4 Mobility in soil**

**Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics**

No relevant data found.

**Tetrakis(2-butoxyethyl) orthosilicate**

No relevant data found.

**Tetra n-Butyl titanate**

No relevant data found.

**n-octane**

Potential for mobility in soil is medium (Koc between 150 and 500).
**Partition coefficient (Koc):** 436,8 Estimated.

**12.5 Results of PBT and vPvB assessment**

**Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics**

This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

**Tetrakis(2-butoxyethyl) orthosilicate**

This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

**Tetra n-Butyl titanate**

This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

**n-octane**

This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

### 12.6 Endocrine disrupting properties

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

**Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics**

The substance is not considered to have endocrine disrupting properties according to REACH Article 57(f), Commission Regulation (EU) 2018/605 or Commission Delegated Regulation (EU) 2017/2100.

**Tetrakis(2-butoxyethyl) orthosilicate**

The substance is not considered to have endocrine disrupting properties according to REACH Article 57(f), Commission Regulation (EU) 2018/605 or Commission Delegated Regulation (EU) 2017/2100.

**Tetra n-Butyl titanate**

The substance is not considered to have endocrine disrupting properties according to REACH Article 57(f), Commission Regulation (EU) 2018/605 or Commission Delegated Regulation (EU) 2017/2100.

**n-octane**

The substance is not considered to have endocrine disrupting properties according to REACH Article 57(f), Commission Regulation (EU) 2018/605 or Commission Delegated Regulation (EU) 2017/2100.

### 12.7 Other adverse effects

**Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics**

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

**Tetrakis(2-butoxyethyl) orthosilicate**

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

**Tetra n-Butyl titanate**

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

**n-octane**

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

Do not dump into any sewers, on the ground, or into any body of water. This product, when being disposed of in its unused and uncontaminated state should be treated as a hazardous waste according to EC Directive 2008/98/EC. Any disposal practices must be in compliance with all national and provincial laws and any municipal or local by-laws governing hazardous waste. For used, contaminated and residual materials additional evaluations may be required.

The definitive assignment of this material to the appropriate EWC group and thus its proper EWC code will depend on the use that is made of this material. Contact the authorized waste disposal services.

## SECTION 14: TRANSPORT INFORMATION

**Classification for ROAD and Rail transport (ADR/RID):**

| | | |
|---|---|---|
| **14.1** | **UN number or ID number** | UN 1133 |
| **14.2** | **UN proper shipping name** | ADHESIVES |
| **14.3** | **Transport hazard class(es)** | 3 |
| **14.4** | **Packing group** | II |
| **14.5** | **Environmental hazards** | Distillates, petroleum, light distillate hydrotreating process, low-boiling |
| **14.6** | **Special precautions for user** | Special Provision 640D<br>Hazard Identification Number: 33 |

**Classification for INLAND waterways (ADNR/ADN):**
**Consult your Dow contact before transporting by inland waterway**

**Classification for SEA transport (IMO-IMDG):**

| | | |
|---|---|---|
| **14.1** | **UN number or ID number** | UN 1133 |
| **14.2** | **UN proper shipping name** | ADHESIVES |
| **14.3** | **Transport hazard class(es)** | 3 |
| **14.4** | **Packing group** | II |
| **14.5** | **Environmental hazards** | Distillates, petroleum, light distillate hydrotreating process, low-boiling |
| **14.6** | **Special precautions for user** | EmS: F-E, S-D |
| **14.7** | **Maritime transport in bulk according to IMO instruments** | Consult IMO regulations before transporting ocean bulk |

**Classification for AIR transport (IATA/ICAO):**

| | | |
|---|---|---|
| **14.1** | **UN number or ID number** | UN 1133 |
| **14.2** | **UN proper shipping name** | Adhesives |
| **14.3** | **Transport hazard class(es)** | 3 |
| **14.4** | **Packing group** | II |
| **14.5** | **Environmental hazards** | Not applicable |
| **14.6** | **Special precautions for user** | No data available. |

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service

representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

## SECTION 15: REGULATORY INFORMATION

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

**REACh Regulation (EC) No 1907/2006**
This product contains only components that have been either registered, are exempt from registration, are regarded as registered or are not subject to registration according to Regulation (EC) No. 1907/2006 (REACH)., The aforementioned indications of the REACH registration status are provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. It is the buyer´s/user´s responsibility to ensure that his/her understanding of the regulatory status of this product is correct.

| | |
|---|---|
| **REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)** | Conditions of restriction for the following entries should be considered:<br>Number on list 3 |

**Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.**
Listed in Regulation: FLAMMABLE LIQUIDS
Number in Regulation: P5c
5 000 t
50 000 t
Listed in Regulation: ENVIRONMENTAL HAZARDS
Number in Regulation: E2
200 t
500 t
Listed in Regulation: Petroleum products: (a) gasolines and naphthas, (b) kerosenes (including jet fuels), (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams),(d) heavy fuel oils (e) alternative fuels serving the same purposes and with similar properties as regards flammability and environmental hazards as the products referred to in points (a) to (d)
Number in Regulation: 34
2 500 t
25 000 t

**Installations classified for the protection of the environment (Environment Code R511-9)**
4331: Flammable liquids category 2 or 3 excluding rubric 4330
4511: Hazardous to the aquatic environment category chronic 2.
4734: Petroleum products and alternative fuels: gasolines and naphthas, kerosenes (including jet fuels), gas oils (including diesel fuels, home heating oils and gas oil blending streams), heavy fuel oils, alternative fuels serving the same purposes and with similar properties as regards flammability and environmental hazards.

**Occupational Illnesses (R-461-3, France):** Table: 84 (Health effects caused by professional use of liquid organic solvents (indicated in the table).)

**Further information**
Take note of Directive 92/85/EEC regarding maternity protection or stricter national regulations, where applicable.

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

**15.2 Chemical safety assessment**
No Chemical Safety Assessment has been carried out for this substance/mixture.

## SECTION 16: OTHER INFORMATION

**Full text of H-Statements referred to under sections 2 and 3.**

| | |
|---|---|
| H225 | Highly flammable liquid and vapour. |
| H226 | Flammable liquid and vapour. |
| H304 | May be fatal if swallowed and enters airways. |
| H315 | Causes skin irritation. |
| H318 | Causes serious eye damage. |
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H411 | Toxic to aquatic life with long lasting effects. |

**Classification and procedure used to derive the classification for mixtures according to Regulation (EC) No 1272/2008**
Flam. Liq. - 2 - H225 - Based on product data or assessment
Skin Irrit. - 2 - H315 - Calculation method
Eye Dam. - 1 - H318 - Calculation method
STOT SE - 3 - H336 - Calculation method
Asp. Tox. - 1 - H304 - Calculation method
Aquatic Chronic - 2 - H411 - Calculation method

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Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

**Legend**

| | |
|---|---|
| 2000/39/EC | Europe. Commission Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values |
| ACGIH | USA. ACGIH Threshold Limit Values (TLV) |
| ACGIH BEI | ACGIH - Biological Exposure Indices (BEI) |
| FR VLE | France. Occupational Exposure Limits (INRS) |

| | |
|---|---|
| STEL | Short term exposure limit |
| TWA | 8-hour, time-weighted average |
| VLCT (VLE) | Short Term Exposure Limit |
| VME | Time Weighted Average |
| Aquatic Acute | Short-term (acute) aquatic hazard |
| Aquatic Chronic | Long-term (chronic) aquatic hazard |
| Asp. Tox. | Aspiration hazard |
| Eye Dam. | Serious eye damage |
| Flam. Liq. | Flammable liquids |
| Skin Irrit. | Skin irritation |
| STOT RE | Specific target organ toxicity - repeated exposure |
| STOT SE | Specific target organ toxicity - single exposure |

**Full text of other abbreviations**
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - AmericanSociety for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associatedwith x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA- Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

**Information Source and References**
This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

DOW FRANCE S.A.S. urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.
FR