



# SAFETY DATA SHEET

DOW CHEMICAL COMPANY LIMITED

Safety Data Sheet according to Reg. (EU) No 2015/830

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

**Revision Date:** 03.07.2019

**Version:** 4.0

**Date of last issue:** 21.09.2018

**Print Date:** 04.07.2019

DOW CHEMICAL COMPANY LIMITED 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

### 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 CHEMICAL COMPANY LIMITED  
STATION ROAD, BIRCH VALE, HIGH PEAK  
DERBYSHIRE  
England  
SK22 1BR  
UNITED KINGDOM

**Customer Information Number:**

+44 (0) 1663 746518

SDSQuestion@dow.com

**Fax:**

+44 (0) 1663 746605

### 1.4 EMERGENCY TELEPHONE NUMBER

**24-Hour Emergency Contact:** 0031 115 694 982

**Local Emergency Contact:** 00 31 115 69 4982

---

## 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.
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/doctor.
P331	Do NOT induce vomiting.
P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P391	Collect spillage.

**Contains** Solvent naphtha (petroleum), light aliph.; Tetra n-Butyl titanate

### 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.

---

## 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
<b>CASRN</b> 64742-89-8 <b>EC-No.</b> 265-192-2 <b>Index-No.</b> 649-267-00-0	—	>= 82.0 - <= 88.0 %	Solvent naphtha (petroleum), light aliph.	Flam. Liq. - 2 - H225 Skin Irrit. - 2 - H315 STOT SE - 3 - H336 Asp. Tox. - 1 - H304 Aquatic Chronic - 2 - H411
<b>CASRN</b> 18765-38-3 <b>EC-No.</b> 242-560-0 <b>Index-No.</b> —	—	>= 4.0 - <= 6.0 %	Tetrakis(2- butoxyethyl) orthosilicate	Skin Irrit. - 2 - H315
<b>CASRN</b> 5593-70-4 <b>EC-No.</b> 227-006-8 <b>Index-No.</b> —	01-2119967423-33	>= 4.0 - <= 6.0 %	Tetra n-Butyl titanate	Flam. Liq. - 3 - H226 Skin Irrit. - 2 - H315 Eye Dam. - 1 - H318 STOT SE - 3 - H336 STOT SE - 3 - H335

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

*Note*

Solvent naphtha (petroleum), light aliph.:

The classification as a carcinogen or mutagen need not to apply because the substance contains less than 0.1% w/w benzene (EINECS No 200-753-7). Note P of Annex VI to Regulation (EC) 1272/2008.

## 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. 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:**

Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

#### **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.

---

## **SECTION 5: FIREFIGHTING MEASURES**

---

### **5.1 Extinguishing media**

**Suitable extinguishing media:** Water spray. Alcohol-resistant foam. Carbon dioxide (CO<sub>2</sub>). Dry chemical.

**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.. Vapours may form explosive mixtures with air..

### **5.3 Advice for firefighters**

**Fire Fighting Procedures:** 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. Use water spray to cool unopened containers. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.

**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. 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, Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

**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.

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 is necessary 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/Notation
Solvent naphtha (petroleum), light aliph.	Dow IHG	TWA	100 ppm
	Dow IHG	STEL	125 ppm
butyl cellosolve	ACGIH	TWA	20 ppm
	2000/39/EC	TWA	98 mg/m <sup>3</sup> 20 ppm
	2000/39/EC	STEL	246 mg/m <sup>3</sup> 50 ppm
	2000/39/EC	TWA	SKIN
	2000/39/EC	STEL	SKIN
	GB EH40	TWA	25 ppm
	GB EH40	TWA	SKIN
propan-1-ol	GB EH40	STEL	50 ppm
	GB EH40	STEL	SKIN
	ACGIH	TWA	100 ppm
	GB EH40	TWA	SKIN
	GB EH40	STEL	SKIN
	GB EH40	STEL	625 mg/m <sup>3</sup> 250 ppm
	GB EH40	TWA	500 mg/m <sup>3</sup> 200 ppm
1-Butanol	ACGIH	TWA	20 ppm
	GB EH40	STEL	SKIN
	GB EH40	STEL	154 mg/m <sup>3</sup> 50 ppm

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
butyl cellosolve	111-76-2	butoxyacetic acid	Urine	After shift	240 Millimoles per mole Creatinine	GB EH40 BAT
		Butoxyacetic acid (BAA)	Urine	End of shift (As soon as possible after exposure ceases)	200 mg/g Creatinine	ACGIH BEI

**Derived No Effect Level**

Tetra n-Butyl titanate

**Workers**

<i>Acute systemic effects</i>		<i>Acute local effects</i>		<i>Long-term systemic effects</i>		<i>Long-term local effects</i>	
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**

<i>Acute systemic effects</i>			<i>Acute local effects</i>		<i>Long-term systemic effects</i>			<i>Long-term local effects</i>	
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.

**Predicted No Effect Concentration**

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 d.w.
Marine sediment	0.007 mg/kg
Sewage treatment plant	65 mg/l
Fresh water sediment	0.069 mg/kg

**8.2 Exposure controls**

**Engineering controls:** Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. 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. If exposure causes eye discomfort, use a full-face respirator (meeting standard EN 136) with organic vapor cartridge (meeting standard EN 14387).

**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 alcohol ("PVA"). Polyvinyl chloride ("PVC" or "vinyl"). Viton. Examples of acceptable glove barrier materials include: Butyl rubber. Natural rubber ("latex"). When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time greater than 480 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. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator.

Use the following CE approved air-purifying respirator: Organic vapor cartridge, type A (boiling point >65 °C, 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	No data available
Melting point/range	No data available
Freezing point	No data available
Boiling point (760 mmHg)	> 100 °C
Flash point	<b>Tag closed cup</b> 13 °C
Evaporation Rate (Butyl Acetate = 1)	No data available
Flammability (solid, gas)	Not applicable
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
Water solubility	No data available
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Kinematic Viscosity	1 mm <sup>2</sup> /s at 25 °C
Explosive properties	Not explosive
Oxidizing properties	The substance or mixture is not classified as oxidizing.

#### 9.2 Other information

Molecular weight	No data available
Particle size	Not applicable

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:** Heat, flames and sparks.

**10.5 Incompatible materials:** Oxidizing agents

**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 toxicological effects

##### Acute toxicity

###### Acute oral toxicity

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.

**Acute dermal toxicity**

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, > 5,000 mg/kg Estimated.

**Acute inhalation toxicity**

Brief exposure (minutes) is not likely to cause adverse effects. Excessive exposure may cause irritation to upper respiratory tract (nose and throat) and lungs. May cause central nervous system effects. Symptoms may include headache, dizziness and drowsiness, progressing to incoordination and unconsciousness.

As product: The LC50 has not been determined.

**Skin corrosion/irritation**

Brief contact may cause moderate skin irritation with local redness.

Repeated contact may cause severe skin burns. Symptoms may include pain, severe local redness and tissue damage.

**Serious eye damage/eye irritation**

May cause moderate eye irritation.

May cause severe corneal injury.

May cause permanent impairment of vision.

Vapor may cause eye irritation experienced as mild discomfort and redness.

**Sensitization**

For skin sensitization:

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

Contains component(s) which have not demonstrated the potential for contact allergy in mice.

For respiratory sensitization:

No relevant data found.

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

Contains component(s) which are classified as specific target organ toxicant, single exposure, category 3.

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

Contains component(s) which have been reported to cause effects on the following organs in animals:

Kidney.

Liver.

**Carcinogenicity**

For the major component(s): Did not cause cancer in laboratory animals.

**Teratogenicity**

For the major component(s): Has been toxic to the fetus in laboratory animals at doses toxic to the mother. Did not cause birth defects in laboratory animals.

**Reproductive toxicity**

For the major component(s): In animal studies, did not interfere with reproduction.

**Mutagenicity**

For the major component(s): In vitro genetic toxicity studies were negative in some cases and positive in other cases. Animal genetic toxicity studies were negative.

**Aspiration Hazard**

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

**COMPONENTS INFLUENCING TOXICOLOGY:****Solvent naphtha (petroleum), light aliph.****Acute inhalation toxicity**

LC50, Rat, male and female, 4 Hour, vapour, > 5.61 mg/l No deaths occurred following exposure to a saturated atmosphere.

**Tetrakis(2-butoxyethyl) orthosilicate****Acute inhalation toxicity**

Brief exposure (minutes) is not likely to cause adverse effects.

**Tetra n-Butyl titanate****Acute inhalation toxicity**

LC50, Rat, 4 Hour, dust/mist, 11 mg/l

---

**SECTION 12: ECOLOGICAL INFORMATION**

---

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

**12.1 Toxicity****Solvent naphtha (petroleum), light aliph.****Acute toxicity to fish**

Material is toxic to aquatic organisms (LC50/EC50/IC50 between 1 and 10 mg/L in the most sensitive species).

LC50, Pimephales promelas (fathead minnow), semi-static test, 96 Hour, 8.2 mg/l

**Acute toxicity to aquatic invertebrates**

EC50, Daphnia magna, static test, 48 Hour, 4.8 mg/l

**Acute toxicity to algae/aquatic plants**

ErC50, Selenastrum capricornutum (green algae), static test, 72 Hour, Growth rate, 3.1 mg/l, OECD Test Guideline 201

**Chronic toxicity to aquatic invertebrates**

NOEC, Daphnia magna (Water flea), 21 d, 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.

**12.2 Persistence and degradability**

**Solvent naphtha (petroleum), light aliph.**

**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.

**12.3 Bioaccumulative potential**

**Solvent naphtha (petroleum), light aliph.**

**Bioaccumulation:** No relevant data found.

**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.

**12.4 Mobility in soil**

**Solvent naphtha (petroleum), light aliph.**

No relevant data found.

**Tetrakis(2-butoxyethyl) orthosilicate**

No relevant data found.

**Tetra n-Butyl titanate**

No relevant data found.

**12.5 Results of PBT and vPvB assessment****Solvent naphtha (petroleum), light aliph.**

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

**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).

**12.6 Other adverse effects****Solvent naphtha (petroleum), light aliph.**

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.

---

**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):**

<b>14.1 UN number</b>	UN 1993
<b>14.2 UN proper shipping name</b>	FLAMMABLE LIQUID, N.O.S.(Solvent naphtha (petroleum),light aliphatic, Organo Titanate)
<b>14.3 Transport hazard class(es)</b>	3
<b>14.4 Packing group</b>	II
<b>14.5 Environmental hazards</b>	Solvent naphtha (petroleum),light aliphatic
<b>14.6 Special precautions for user</b>	Special Provision 640D Hazard Identification Number: 33

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

---

14.1 UN number	UN 1993
14.2 UN proper shipping name	FLAMMABLE LIQUID, N.O.S.(Solvent naphtha (petroleum),light aliphatic, Organo Titanate)
14.3 Transport hazard class(es)	3
14.4 Packing group	II
14.5 Environmental hazards	Solvent naphtha (petroleum),light aliphatic
14.6 Special precautions for user	EmS: F-E, S-E
14.7 Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code	Consult IMO regulations before transporting ocean bulk

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

14.1 UN number	UN 1993
14.2 UN proper shipping name	Flammable liquid, n.o.s.(Solvent naphtha (petroleum),light aliphatic, Organo Titanate)
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.

**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

#### 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

Not applicable

---

## 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.
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

#### Revision

Identification Number: 6024521 / A279 / Issue Date: 03.07.2019 / Version: 4.0

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)
Dow IHG	Dow Industrial Hygiene Guideline
GB EH40	UK. EH40 WEL - Workplace Exposure Limits
GB EH40 BAT	UK. Biological monitoring guidance values
SKIN	Absorbed via skin
STEL	Short term exposure limit
TWA	Time weighted average
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 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; AICS - Australian Inventory of Chemical Substances; ASTM - American Society 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 associated with 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; 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 CHEMICAL COMPANY LIMITED 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.

GB