



# SAFETY DATA SHEET

DOW CHEMICAL COMPANY LIMITED

Safety Data Sheet according to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law

**Product name: DOWSIL™ 90-006-2 RF Catalyst**

**Revision Date:** 20.04.2025

**Version:** 8.0

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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.

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

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### 1.1 Product identifier

**Product name:** DOWSIL™ 90-006-2 RF Catalyst

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

**Identified uses:** Use at industrial sites: Use as a reactive agent.

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

#### COMPANY IDENTIFICATION

DOW CHEMICAL COMPANY LIMITED  
5 OAKWATER AVENUE  
CHEADLE ROYAL BUSINESS PARK  
CHEADLE  
SK8 3SR  
UNITED KINGDOM

**Customer Information Number:**

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**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

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## SECTION 2: HAZARDS IDENTIFICATION

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### 2.1 Classification of the substance or mixture

**Classification according to Regulation (EC) No 1272/2008, as retained and amended in UK law**

Skin sensitisation - Category 1 - H317

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, as retained and amended in UK law

### Hazard pictograms



Signal word: **WARNING**

### Hazard statements

H317 May cause an allergic skin reaction.

### Precautionary statements

P261 Avoid breathing mist or vapours.

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

P280 Wear protective gloves.

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

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

P501 Dispose of contents/ container to an approved waste disposal plant.

**Contains** Bis[(2-ethyl-2,5-dimethylhexanoyl)oxy](dimethyl)stannane

## 2.3 Other hazards

This product contains octamethylcyclotetrasiloxane (D4) that has been identified by the Member State Committee of ECHA as fulfilling the PBT and vPvB criteria laid down in Annex XIII to Regulation (EC) No 1907/2006. See Section 12 for additional information.

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## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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**Chemical nature:** Silicone

### 3.2 Mixtures

This product is a mixture.

CASRN / EC-No. / Index-No.	UK REACH Registration Number	Concentration	Component	Classification: REGULATION (EC) No 1272/2008, as retained and amended in UK law
CASRN 68928-76-7 EC-No. 273-028-6	—	>= 0.76 - <= 1.96 %	Bis[(2-ethyl-2,5- dimethylhexanoyl)o xy](dimethyl)stanna ne	Acute Tox. 4; H302 Skin Irrit. 2; H315 Skin Sens. 1A; H317 Repr. 2; H361d

Index-No. —				STOT RE 1; H372 (Nervous system) Aquatic Chronic 3; H412  Acute toxicity estimate Acute oral toxicity: 892 mg/kg Acute dermal toxicity: > 2,000 mg/kg
CASRN 556-67-2 EC-No. 209-136-7 Index-No. 014-018-00-1	—	>= 0.04 - <= 0.077 %	octamethylcyclotetr asiloxane [D4]	Flam. Liq. 3; H226 Repr. 2; H361f Aquatic Chronic 1; H410  M-Factor (Chronic aquatic toxicity): 10  Acute toxicity estimate Acute oral toxicity: > 4,800 mg/kg Acute inhalation toxicity: 36 mg/l, 4 Hour, dust/mist Acute dermal toxicity: > 2,400 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; consult a physician.

**Skin contact:** Remove material from skin immediately by washing with soap and plenty of water. Remove contaminated clothing and shoes while washing. Seek medical attention if irritation or rash occurs. Wash clothing before reuse. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands. Suitable emergency safety shower facility should be available in work area.

**Eye contact:** Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

**Ingestion:** If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

**4.2 Most important symptoms and effects, both acute and delayed:**

May cause an allergic skin reaction.

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

**Notes to physician:** No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

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**SECTION 5: FIREFIGHTING MEASURES**

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**5.1 Extinguishing media**

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

**Unsuitable extinguishing media:** None known..

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

**Hazardous combustion products:** Carbon oxides. Silicon oxides. Metal oxides. Nitrogen oxides (NO<sub>x</sub>).

**Unusual Fire and Explosion Hazards:** Exposure to combustion products may be a hazard to health..

**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..

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..

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**SECTION 6: ACCIDENTAL RELEASE MEASURES**

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**6.1 Personal precautions, protective equipment and emergency procedures:** Use personal protective equipment. Follow safe handling advice and personal protective equipment recommendations.

**6.2 Environmental precautions:** Discharge into the environment must be avoided. 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:** Soak up with inert absorbent material. 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. Avoid inhalation of vapour or mist. Avoid contact with eyes. Do not swallow. Take care to prevent spills, waste and minimize release to the environment. 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 only with adequate ventilation. See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

**7.2 Conditions for safe storage, including any incompatibilities:** Keep in properly labelled containers. Store in accordance with the particular national regulations.

Do not store with the following product types: Strong oxidizing agents.

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
Bis[(2-ethyl-2,5-dimethylhexanoyl)oxy](dimethyl)stannane	ACGIH	TWA	0.1 mg/m <sup>3</sup> , Tin
	Further information: A4: Not classifiable as a human carcinogen; Skin: Danger of cutaneous absorption		
	ACGIH	STEL	0.2 mg/m <sup>3</sup> , Tin
	Further information: A4: Not classifiable as a human carcinogen; Skin: Danger of cutaneous absorption		
	GB EH40	TWA	0.1 mg/m <sup>3</sup> , Tin
	Further information: Sk: Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.		
	GB EH40	STEL	0.2 mg/m <sup>3</sup> , Tin
	Further information: Sk: Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.		
octamethylcyclotetrasiloxane [D4]	US WEEL	TWA	10 ppm

### 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 Sécurité, (INRS), France.

#### Derived No Effect Level

octamethylcyclotetrasiloxane [D4]

##### 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.	73 mg/m <sup>3</sup>	n.a.	73 mg/m <sup>3</sup>

##### 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.	n.a.	13 mg/m <sup>3</sup>	3.7 mg/kg bw/day	n.a.	13 mg/m <sup>3</sup>

#### Predicted No Effect Concentration

octamethylcyclotetrasiloxane [D4]

Compartment	PNEC
Fresh water	0.0015 mg/l
Marine water	0.00015 mg/l
Sewage treatment plant	10 mg/l
Fresh water sediment	3 mg/kg dry weight (d.w.)
Marine sediment	0.3 mg/kg dry weight (d.w.)
Soil	0.84 mg/kg dry weight (d.w.)
Oral	41 mg/kg food

## 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 safety glasses (with side shields). Safety glasses (with side shields) 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: Butyl rubber. Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl chloride ("PVC" or "vinyl"). 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. For most conditions, no respiratory protection should be needed; however, if handling at elevated temperatures without sufficient ventilation, 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).

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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### 9.1 Information on basic physical and chemical properties

#### Appearance

Physical state

viscous liquid

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<b>Color</b>	green
<b>Odor</b>	slight
<b>Odor Threshold</b>	No data available
<b>pH</b>	Not applicable, substance/mixture is non-soluble (in water)
<b>Melting point/ range</b>	No data available
<b>Freezing point</b>	No data available
<b>Boiling point (760 mmHg)</b>	> 35 °C
<b>Flash point</b>	<b>closed cup</b> >93.3 °C
<b>Evaporation Rate (Butyl Acetate = 1)</b>	No data available
<b>Flammability (solid, gas)</b>	Not applicable
<b>Lower explosion limit</b>	No data available
<b>Upper explosion limit</b>	No data available
<b>Vapor Pressure</b>	No data available
<b>Relative Vapor Density (air = 1)</b>	No data available
<b>Relative Density (water = 1)</b>	1.3
<b>Water solubility</b>	insoluble
<b>Partition coefficient: n-octanol/water</b>	No data available
<b>Auto-ignition temperature</b>	No data available
<b>Decomposition temperature</b>	No data available
<b>Dynamic Viscosity</b>	9,700 mPa.s
<b>Kinematic Viscosity</b>	No data available
<b>Explosive properties</b>	Not explosive
<b>Oxidizing properties</b>	The substance or mixture is not classified as oxidizing.

## 9.2 Other information

**Molecular weight** No data available

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

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## SECTION 10: STABILITY AND REACTIVITY

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**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. When heated to temperatures above 180 °C (356 °F) in the presence of air, trace quantities of formaldehyde may be released. Adequate ventilation is required. Vapours may form explosive mixture with air.

**10.4 Conditions to avoid:** None known.

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

**10.6 Hazardous decomposition products:**

Decomposition products can include and are not limited to: Formaldehyde.

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**SECTION 11: TOXICOLOGICAL INFORMATION**

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

**11.1 Information on toxicological effects****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. Swallowing may result in gastrointestinal irritation. May cause nausea and vomiting.

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:****Bis[(2-ethyl-2,5-dimethylhexanoyl)oxy](dimethyl)stannane**

LD50, Rat, male and female, 892 mg/kg OECD 401 or equivalent

**octamethylcyclotetrasiloxane [D4]**

LD50, Rat, male, > 4,800 mg/kg No deaths occurred at this concentration.

**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:****Bis[(2-ethyl-2,5-dimethylhexanoyl)oxy](dimethyl)stannane**

LD50, Rat, > 2,000 mg/kg

**octamethylcyclotetrasiloxane [D4]**

LD50, Rat, male and female, > 2,400 mg/kg No deaths occurred at this concentration.

**Acute inhalation toxicity**

**Information for the Product:**

At room temperature, exposure to vapor is minimal due to low volatility. Vapor from heated material may cause respiratory irritation. Signs and symptoms of excessive exposure may include: Headache. Excessive exposure may cause: Dizziness Drowsiness.

As product: The LC50 has not been determined.

**Information for components:**

**Bis[(2-ethyl-2,5-dimethylhexanoyl)oxy](dimethyl)stannane**

As product: The LC50 has not been determined.

**octamethylcyclotetrasiloxane [D4]**

LC50, Rat, male and female, 4 Hour, dust/mist, 36 mg/l OECD Test Guideline 403

**Skin corrosion/irritation**

**Information for the Product:**

Based on information for component(s):  
Brief contact may cause slight skin irritation with local redness.

**Information for components:**

**Bis[(2-ethyl-2,5-dimethylhexanoyl)oxy](dimethyl)stannane**

Brief contact may cause skin irritation with local redness.

**octamethylcyclotetrasiloxane [D4]**

Brief contact is essentially nonirritating to skin.

**Serious eye damage/eye irritation**

**Information for the Product:**

Based on information for component(s):  
May cause slight temporary eye irritation.  
May cause mild eye discomfort.

**Information for components:**

**Bis[(2-ethyl-2,5-dimethylhexanoyl)oxy](dimethyl)stannane**

May cause slight eye irritation.  
May cause slight temporary corneal injury.

**octamethylcyclotetrasiloxane [D4]**

Essentially nonirritating to eyes.

**Sensitization**

**For skin sensitization:**

May cause an allergic skin reaction.

**Information for the Product:**

For skin sensitization:

Contains component(s) which have caused allergic skin sensitization in guinea pigs.

For respiratory sensitization:

No relevant information found.

**Information for components:**

**Bis[(2-ethyl-2,5-dimethylhexanoyl)oxy](dimethyl)stannane**

Has caused allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:

No relevant data found.

**octamethylcyclotetrasiloxane [D4]**

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)**

**Information for the Product:**

Product test data not available.

**Information for components:**

**Bis[(2-ethyl-2,5-dimethylhexanoyl)oxy](dimethyl)stannane**

Available data are inadequate to determine single exposure specific target organ toxicity.

**octamethylcyclotetrasiloxane [D4]**

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

**Aspiration Hazard**

**Information for the Product:**

Based on physical properties, not likely to be an aspiration hazard.

**Information for components:****Bis[(2-ethyl-2,5-dimethylhexanoyl)oxy](dimethyl)stannane**

Based on physical properties, not likely to be an aspiration hazard.

**octamethylcyclotetrasiloxane [D4]**

Material is not classified as an aspiration hazard based on insufficient data, however materials with low viscosity may be aspirated into the lungs during ingestion or vomiting.

**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:****Bis[(2-ethyl-2,5-dimethylhexanoyl)oxy](dimethyl)stannane**

In animals, effects have been reported on the following organs:

Blood

Kidney

Liver

Immune system.

Nervous system.

**octamethylcyclotetrasiloxane [D4]**

In animals, effects have been reported on the following organs:

Kidney.

Liver.

Respiratory tract.

Female reproductive organs.

**Carcinogenicity****Information for the Product:**

Product test data not available.

**Information for components:****Bis[(2-ethyl-2,5-dimethylhexanoyl)oxy](dimethyl)stannane**

No relevant data found.

**octamethylcyclotetrasiloxane [D4]**

Results from a 2 year repeated vapour inhalation exposure study to rats of octamethylcyclotetrasiloxane (D4) indicate effects (benign uterine adenomas) in the uterus of female animals. This finding occurred at the highest exposure dose (700 ppm) only.

Studies to date have not demonstrated if these effects occur through pathways that are relevant to humans. Repeated exposure in rats to D4 resulted in protoporphyrin accumulation in the liver. Without knowledge of the specific mechanism leading to the protoporphyrin accumulation the relevance of this finding to humans is unknown.

## Teratogenicity

### Information for the Product:

Product test data not available.

### Information for components:

#### **Bis[(2-ethyl-2,5-dimethylhexanoyl)oxy](dimethyl)stannane**

Based on testing for a similar material: Oral exposure in laboratory animals: Has been toxic to the fetus in laboratory animals at doses toxic to the mother. Has caused birth defects in laboratory animals only at doses toxic to the mother.

#### **octamethylcyclotetrasiloxane [D4]**

Did not cause birth defects or any other fetal effects in laboratory animals.

## Reproductive toxicity

### Information for the Product:

Product test data not available.

### Information for components:

#### **Bis[(2-ethyl-2,5-dimethylhexanoyl)oxy](dimethyl)stannane**

No relevant data found.

#### **octamethylcyclotetrasiloxane [D4]**

In laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals. In animal studies, has been shown to interfere with fertility.

## Mutagenicity

### Information for the Product:

Product test data not available.

### Information for components:

#### **Bis[(2-ethyl-2,5-dimethylhexanoyl)oxy](dimethyl)stannane**

In vitro genetic toxicity studies were negative in some cases and positive in other cases. Animal genetic toxicity studies were negative.

#### **octamethylcyclotetrasiloxane [D4]**

In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.

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## SECTION 12: ECOLOGICAL INFORMATION

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

### 12.1 Toxicity

#### **Bis[(2-ethyl-2,5-dimethylhexanoyl)oxy](dimethyl)stannane**

##### **Acute toxicity to fish**

Material is harmful to aquatic organisms (LC50/EC50/IC50 between 10 and 100 mg/L in the most sensitive species).

For similar material(s):

LC50, Zebra fish (Danio/Brachydanio rerio), semi-static test, 96 Hour, > 100 mg/l, OECD Test Guideline 203 or Equivalent

##### **Acute toxicity to aquatic invertebrates**

EC50, Daphnia magna, static test, 48 Hour, 39 mg/l, OECD Test Guideline 202 or Equivalent

##### **Acute toxicity to algae/aquatic plants**

ErC50, Algae (Scenedesmus subspicatus), Growth rate, 72 Hour, Growth rate, 7.6 mg/l, OECD Test Guideline 201 or Equivalent

For similar material(s):

NOEC, Algae (Scenedesmus subspicatus), Growth rate, 72 Hour, Growth rate, 1.1 mg/l, OECD Test Guideline 201 or Equivalent

##### **Toxicity to bacteria**

For similar material(s):

EC50, Bacteria, 3 Hour, Respiration rates., 14 mg/l

#### **octamethylcyclotetrasiloxane [D4]**

##### **Acute toxicity to fish**

Based on testing of comparable products: The estimated maximum aqueous concentration of Octamethyl Cyclotetrasiloxane (D4) from migration to water from the product as supplied is below the D4 established no-effect threshold (< 0.0079 mg/L) for aquatic organisms.

##### **Chronic toxicity to aquatic invertebrates**

Based on testing for product(s) in this family of materials:

Not classified due to data which are conclusive although insufficient for classification.

### 12.2 Persistence and degradability

#### **Bis[(2-ethyl-2,5-dimethylhexanoyl)oxy](dimethyl)stannane**

**Biodegradability:** For similar material(s): Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.

For similar material(s): 10-day Window: Fail

**Biodegradation:** 3 %

**Exposure time:** 28 d

**Method:** OECD Test Guideline 301F or Equivalent

#### **octamethylcyclotetrasiloxane [D4]**

**Biodegradability:** Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.

10-day Window: Not applicable

**Biodegradation:** 3.7 %

**Exposure time:** 28 d

**Method:** OECD Test Guideline 310

#### **Stability in Water (1/2-life)**

Hydrolysis, DT50, 3.9 d, pH 7, Half-life Temperature 25 °C, OECD Test Guideline 111

Hydrolysis, DT50, 16.7 d, pH 7, Half-life Temperature 12 °C, OECD Test Guideline 111

Hydrolysis, DT50, 0.075 d, pH 4, Half-life Temperature 25 °C, OECD Test Guideline 111

### **12.3 Bioaccumulative potential**

#### **Bis(2-ethyl-2,5-dimethylhexanoyl)oxy](dimethyl)stannane**

**Bioaccumulation:** No relevant data found.

#### **octamethylcyclotetrasiloxane [D4]**

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

**Partition coefficient: n-octanol/water(log Pow):** 6.49 Measured

**Bioconcentration factor (BCF):** 12,400 Pimephales promelas (fathead minnow) Measured

### **12.4 Mobility in soil**

#### **Bis(2-ethyl-2,5-dimethylhexanoyl)oxy](dimethyl)stannane**

No relevant data found.

#### **octamethylcyclotetrasiloxane [D4]**

**Partition coefficient (Koc):** 16596 OECD Test Guideline 106

### **12.5 Results of PBT and vPvB assessment**

#### **Bis(2-ethyl-2,5-dimethylhexanoyl)oxy](dimethyl)stannane**

No data available

#### **octamethylcyclotetrasiloxane [D4]**

Octamethylcyclotetrasiloxane (D4) meets the current criteria for PBT and vPvB under REACH Annex XIII or other regionally specific criteria. However, D4 does not behave similarly to known PBT/vPvB substances. The weight of scientific evidence from field studies shows that D4 is not biomagnifying in aquatic and terrestrial food webs. D4 in air will degrade by reaction with naturally occurring hydroxyl radicals in the atmosphere. Any D4 in air that does not degrade by reaction with hydroxyl radicals is not expected to deposit from the air to water, to land, or to living organisms.

### **12.6 Other adverse effects**

#### **Bis(2-ethyl-2,5-dimethylhexanoyl)oxy](dimethyl)stannane**

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

#### **octamethylcyclotetrasiloxane [D4]**

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

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## SECTION 13: DISPOSAL CONSIDERATIONS

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### 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, provided it fulfills the criteria listed in Annex III of this directive. 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.

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## SECTION 14: TRANSPORT INFORMATION

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

- |                                   |   |
|-----------------------------------|---|
| 14.1 UN number or ID number       | Not applicable  |
| 14.2 UN proper shipping name      | Not regulated for transport                                       |
| 14.3 Transport hazard class(es)   | Not applicable  |
| 14.4 Packing group                | Not applicable  |
| 14.5 Environmental hazards        | Not considered environmentally hazardous based on available data. |
| 14.6 Special precautions for user | No data available.  |

### 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                                  | Not applicable  |
| 14.2 UN proper shipping name                                 | Not regulated for transport                                 |
| 14.3 Transport hazard class(es)                              | Not applicable  |
| 14.4 Packing group   | Not applicable  |
| 14.5 Environmental hazards                                   | Not considered as marine pollutant based on available data. |
| 14.6 Special precautions for user                            | No data available.  |
| 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     | Not applicable              |
| 14.2 UN proper shipping name    | Not regulated for transport |
| 14.3 Transport hazard class(es) | Not applicable              |

- 14.4 **Packing group** Not applicable  
 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.

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## SECTION 15: REGULATORY INFORMATION

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

#### UK REACH - UK Statutory Instruments 2019 No.758 as amended

The aforementioned indications of the UK REACH registration status are provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, expressed 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., This product contains only components that have been either registered, notified for downstream user import (DUIN), are exempt from registration, are regarded as registered or are not subject to registration according to UK Statutory Instruments 2019 No.758 as amended (UK REACH).

#### UK REACH List of restrictions (Annex 17)

Conditions of restriction for the following entries should be considered:

Number on list 18a, 19, 20, 23, 27, 3, 30, 72

Bis[(2-ethyl-2,5-dimethylhexanoyl)oxy](dimethyl)stannane

(Number on list 20)

octamethylcyclotetrasiloxane [D4] (Number on list 70)

#### Authorisation status under REACH:

The following substance/s contained in this product might be or is/are subject to authorization in accordance with REACH:

CAS-No.: 556-67-2	Name: octamethylcyclotetrasiloxane [D4]
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Authorisation status: listed in the Candidate List of Substances of Very High Concern for Authorisation

Authorisation number: Not available

Sunset date: Not available

Exempted (Categories of) Uses: Not available

**Control of Major Accident Hazards Regulations 2015 (COMAH)**

Listed in Regulation: Not applicable

**Further information**

Take note of The Management of Health and Safety at Work Regulations 1999 (requirements relating to new and expectant mothers at work contained in Regulation 16 to 18) and of the Pregnant Workers Directive 92/85/EEC.

Take note of The Management of Health and Safety at Work Regulations 1999 (requirements relating to protection of young people at work contained in Regulation 19) and of Directive 94/33/EC on the protection of young people at work.

**15.2 Chemical safety assessment**

No Chemical Safety Assessment has been carried out for this substance/mixture.

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**SECTION 16: OTHER INFORMATION**


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

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H361d	Suspected of damaging the unborn child.
H361f	Suspected of damaging fertility.
H372	Causes damage to organs through prolonged or repeated exposure if swallowed.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

**Classification and procedure used to derive the classification for mixtures according to Regulation (EC) No 1272/2008**

Skin Sens. - 1 - H317 - Calculation method

**Revision**

Identification Number: 4102989 / A279 / Issue Date: 20.04.2025 / Version: 8.0

In case this version of the SDS contains significant changes from the previous version, they are listed below or noted by bold, double bars in the left-hand margin throughout this document.

Changes encompass identification, hazards, tox/eco-tox information and the addition/removal of the ingredients, and regulatory information, hazard information, uses, risk management measures and other key regulatory changes of the product. Detailed explanation of the changes can be obtained upon request.

**Legend**

ACGIH	USA. ACGIH Threshold Limit Values (TLV)
GB EH40	UK. EH40 WEL - Workplace Exposure Limits
STEL	Short-term exposure limit
TWA	8-hour, time-weighted average
US WEEL	USA. Workplace Environmental Exposure Levels (WEEL)
Acute Tox.	Acute toxicity

Aquatic Chronic	Long-term (chronic) aquatic hazard
Flam. Liq.	Flammable liquids
Repr.	Reproductive toxicity
Skin Irrit.	Skin irritation
Skin Sens.	Skin sensitisation
STOT RE	Specific target organ toxicity - repeated exposure

### Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; 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; 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 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.  
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