



SAFETY DATA SHEET

DOW CHEMICAL COMPANY LIMITED

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

Product name: DOWSIL™ 798 Cold and Clean Room Silicone
White

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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.

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

1.1 Product identifier

Product name: DOWSIL™ 798 Cold and Clean Room Silicone White

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

Identified uses: Construction materials and additives

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

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+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:

Long-term (chronic) aquatic hazard - Category 3 - H412

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 statements

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P501 Dispose of contents/ container to an approved waste disposal plant.

Supplemental information

EUH208 Contains: Methyltrimethoxysilane. May produce an allergic reaction.

2.3 Other hazards

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: Silicone elastomer

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 1185-55-3 EC-No. 214-685-0 Index-No. -	01-2119517436-40	>= 0.58 - <= 0.67 %	Methyltrimethoxysilane	Flam. Liq. - 2 - H225 Skin Sens. - 1B - H317
CASRN 20018-09-1 EC-No. 243-468-3 Index-No. -	-	>= 0.026 - <= 0.043 %	Diiodomethyl-p-tolylsulfone	Acute Tox. - 3 - H331 Eye Dam. - 1 - H318 Skin Sens. - 1 - H317 Aquatic Acute - 1 - H400 Aquatic Chronic - 1 - H410
Substances with a workplace exposure limit				
CASRN 1328-53-6 EC-No. 215-524-7 Index-No. -	01-2119459333-39	<= 3.15 %	C.I. Pigment Green 7	Not classified

CASRN 20344-49-4 EC-No. 243-746-4 Index-No. –	–	<= 2.8 %	Iron hydroxide oxide	Not classified
CASRN 51274-00-1 EC-No. 257-098-5 Index-No. –	–	<= 2.31 %	C.I. Pigment Yellow 42	Not classified
CASRN 12001-26-2 EC-No. 310-127-6 Index-No. –	–	<= 1.82 %	Mica muscovite	Not classified
CASRN 7727-43-7 EC-No. 231-784-4 Index-No. –	–	>= 0.16 - <= 1.12 %	Barium sulfate	Not classified

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.

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: Rinse mouth with water. No emergency medical treatment necessary.

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: No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Skin contact may aggravate preexisting dermatitis.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

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

Unsuitable extinguishing media: None known..

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products: Metal oxides. Formaldehyde. Carbon oxides. Silicon oxides. Cobalt compounds. Nitrogen oxides (NO_x). Chlorine compounds. Sulphur oxides. Hydrogen sulfide..

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.. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage..

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: Wear self-contained breathing apparatus for firefighting if necessary.. Use personal protective equipment..

SECTION 6: ACCIDENTAL RELEASE MEASURES

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: Do not release the product to the aquatic environment above defined regulatory levels. Prevent further leakage or spillage if safe to do so. 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: Wipe up or scrape up and contain for salvage or disposal. 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 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
Methyltrimethoxysilane	Dow IHG	TWA	7.5 ppm
	Further information: Skin Sensitizer		
Diiodomethyl-p-tolylsulfone	Dow IHG	TWA Inhalable fraction	0.1 mg/m ³
	Further information: Skin Sensitizer		
	Dow IHG	STEL Inhalable fraction	1 mg/m ³
	Further information: Skin Sensitizer		
C.I. Pigment Green 7	GB EH40	TWA Dusts and mists	1 mg/m ³ , Copper
	GB EH40	STEL Dusts and mists	2 mg/m ³ , Copper
Iron hydroxide oxide	GB EH40	TWA Fumes	5 mg/m ³ , Iron
	GB EH40	STEL Fumes	10 mg/m ³ , Iron
	GB EH40	TWA	1 mg/m ³ , Iron
	GB EH40	STEL	2 mg/m ³ , Iron

C.I. Pigment Yellow 42	GB EH40	TWA Fumes	5 mg/m ³ , Iron
	GB EH40	STEL Fumes	10 mg/m ³ , Iron
Mica muscovite	ACGIH	TWA Respirable particulate matter	3 mg/m ³
	GB EH40	TWA Inhalable	10 mg/m ³
	GB EH40	TWA Respirable	0.8 mg/m ³
Barium sulfate	ACGIH	TWA	10 mg/m ³
	Further information: pneumoconiosis: Pneumoconiosis		
	ACGIH	TWA Inhalable particulate matter	5 mg/m ³
	GB EH40	TWA Inhalable	10 mg/m ³
	Further information: 15: For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/4 General methods for sampling and gravimetric analysis or respirable, thoracic and inhalable aerosols; 44: The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m ⁻³ 8-hour TWA of inhalable dust or 4 mg.m ⁻³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed to dust above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limits.; 45: Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system, and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'.; 46: Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/4.; 47: Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with.; 16: Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit should be used.		
	GB EH40	TWA Respirable	4 mg/m ³
	Further information: 15: For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/4 General methods for sampling and gravimetric analysis or respirable, thoracic and inhalable aerosols; 44: The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m ⁻³ 8-hour TWA of inhalable dust or 4 mg.m ⁻³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed to dust above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limits.; 45: Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system, and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'.; 46: Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/4.; 47: Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with.; 16: Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit should be used.		
	GB EH40	TWA inhalable dust	10 mg/m ³
	GB EH40	TWA Respirable dust	4 mg/m ³

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

Methyltrimethoxysilane

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
0.38 mg/kg bw/day	25.6 mg/m3	n.a.	n.a.	0.38 mg/kg bw/day	25.6 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
0.3 mg/kg bw/day	6.25 mg/m3	0.26 mg/kg bw/day	n.a.	n.a.	0.3 mg/kg bw/day	6.25 mg/m3	0.26 mg/kg bw/day	n.a.	n.a.

C.I. Pigment Green 7

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.	450 mg/kg bw/day	4 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.	225 mg/kg bw/day	n.a.	45 mg/kg bw/day	n.a.	n.a.
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Iron hydroxide oxide

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.	10 mg/m3	n.a.	10 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.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

C.I. Pigment Yellow 42

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.	10 mg/m3	n.a.	10 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.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Barium sulfate

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.	10 mg/m3	n.a.	10 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.	n.a.	n.a.	n.a.	n.a.	n.a.	10 mg/m3	13000 mg/kg bw/day	n.a.	n.a.

Predicted No Effect Concentration

Methyltrimethoxysilane

Compartment	PNEC
Fresh water	>= 1.3 mg/l
Marine water	>= 0.13 mg/l
Fresh water sediment	>= 1.1 mg/kg

Marine sediment	>= 0.11 mg/kg
Soil	>= 0.17 mg/kg
Sewage treatment plant	> 6.9 mg/l

C.I. Pigment Green 7

Compartment	PNEC
Fresh water sediment	10 mg/kg
Marine sediment	1 mg/kg
Soil	1 mg/kg

Barium sulfate

Compartment	PNEC
Fresh water	227.8 mg/l
Sewage treatment plant	50.1 mg/l
Soil	707.7 mg/kg
Fresh water sediment	792.7 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 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. Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl alcohol ("PVA"). Polyvinyl chloride ("PVC" or "vinyl"). Viton. Examples of acceptable glove barrier materials include: Natural rubber ("latex"). 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 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	paste
Color	in accordance with the product description
Odor	none
Odor Threshold	No data available
pH	Not applicable
Melting point/range	No data available
Freezing point	No data available
Boiling point (760 mmHg)	Not applicable
Flash point	closed cup >100 °C
Evaporation Rate (Butyl Acetate = 1)	Not applicable
Flammability (solid, gas)	Not classified as a flammability hazard
Lower explosion limit	No data available
Upper explosion limit	No data available
Vapor Pressure	Not applicable
Relative Vapor Density (air = 1)	No data available
Relative Density (water = 1)	1.52
Water solubility	No data available
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Dynamic Viscosity	Not applicable
Kinematic Viscosity	Not applicable
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 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.

10.4 Conditions to avoid: None known.

10.5 Incompatible materials: Oxidizing agents

10.6 Hazardous decomposition products:

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

SECTION 11: TOXICOLOGICAL INFORMATION

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

11.1 Information on toxicological effects

Information on likely routes of exposure

Eye contact, Skin contact, Ingestion.

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

Acute oral toxicity

Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts. May cause abdominal discomfort or diarrhea.

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:

Methyltrimethoxysilane

LD50, Rat, male and female, 11,685 mg/kg

Diiodomethyl-p-tolylsulfone

LD50, Rat, > 5,000 mg/kg

C.I. Pigment Green 7

LD50, Rat, male and female, > 5,000 mg/kg OECD Test Guideline 401

Iron hydroxide oxide

LD50, Rat, > 10,000 mg/kg

C.I. Pigment Yellow 42

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

LD50, Rat, male, > 10,000 mg/kg

Mica muscovite

Single dose oral LD50 has not been determined.

Barium sulfate

LD50, Rat, male, > 5,000 mg/kg

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, > 2,000 mg/kg Estimated.

Information for components:

Methyltrimethoxysilane

LD50, Rabbit, male and female, > 9,500 mg/kg

Diiodomethyl-p-tolylsulfone

LD50, Rabbit, > 20,000 mg/kg

C.I. Pigment Green 7

The dermal LD50 has not been determined.

Iron hydroxide oxide

The dermal LD50 has not been determined.

C.I. Pigment Yellow 42

The dermal LD50 has not been determined.

Mica muscovite

The dermal LD50 has not been determined.

Barium sulfate

The dermal LD50 has not been determined.

Acute inhalation toxicity

Brief exposure (minutes) is not likely to cause adverse effects. Vapor from heated material may cause respiratory irritation.

As product: The LC50 has not been determined.

Information for components:

Methyltrimethoxysilane

LC50, Rat, male and female, 4 Hour, vapour, 51.6 mg/l

Diiodomethyl-p-tolylsulfone

LC50, Rat, 4 Hour, dust/mist, 0.96 mg/l

C.I. Pigment Green 7

The LC50 has not been determined.

Iron hydroxide oxide

Dust may cause irritation to upper respiratory tract (nose and throat). Prolonged excessive exposure to dust may cause adverse effects.

The LC50 has not been determined.

C.I. Pigment Yellow 42

The LC50 has not been determined.

Mica muscovite

The LC50 has not been determined.

Barium sulfate

The LC50 has not been determined.

Skin corrosion/irritation

Based on information for component(s):

Prolonged contact may cause slight skin irritation with local redness.

May cause drying and flaking of the skin.

Information for components:

Methyltrimethoxysilane

Brief contact is essentially nonirritating to skin.

Diiodomethyl-p-tolylsulfone

Brief contact is essentially nonirritating to skin.

Prolonged contact may cause slight skin irritation with local redness.

C.I. Pigment Green 7

Brief contact may cause slight skin irritation with local redness.

Iron hydroxide oxide

Prolonged contact may cause skin irritation with local redness.

C.I. Pigment Yellow 42

Prolonged contact is essentially nonirritating to skin.

Mica muscovite

Prolonged contact may cause skin irritation with local redness.

Barium sulfate

Prolonged contact may cause slight skin irritation with local redness.

Serious eye damage/eye irritation

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

Information for components:

Methyltrimethoxysilane

Essentially nonirritating to eyes.
Corneal injury is unlikely.

Diiodomethyl-p-tolylsulfone

May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur.

C.I. Pigment Green 7

May cause slight eye irritation.

Iron hydroxide oxide

May cause eye irritation.

C.I. Pigment Yellow 42

Essentially nonirritating to eyes.

Mica muscovite

Solid or dust may cause irritation or corneal injury due to mechanical action.

Barium sulfate

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

Sensitization

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:

Methyltrimethoxysilane

Has caused allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:
No relevant data found.

Diiodomethyl-p-tolylsulfone

Has demonstrated the potential for contact allergy in mice.

For respiratory sensitization:
No relevant data found.

C.I. Pigment Green 7

Did not demonstrate the potential for contact allergy in mice.

For respiratory sensitization:
No relevant data found.

Iron hydroxide oxide

For skin sensitization:
No relevant data found.

For respiratory sensitization:
No relevant data found.

C.I. Pigment Yellow 42

Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:
No relevant data found.

Mica muscovite

For skin sensitization:
No relevant data found.

For respiratory sensitization:
No relevant data found.

Barium sulfate

For similar material(s):
Did not demonstrate the potential for contact allergy in mice.

For respiratory sensitization:
No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)

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

Information for components:

Methyltrimethoxysilane

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

Diiodomethyl-p-tolylsulfone

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

C.I. Pigment Green 7

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

Iron hydroxide oxide

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

C.I. Pigment Yellow 42

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

Mica muscovite

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

Barium sulfate

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

Aspiration Hazard

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

Information for components:

Methyltrimethoxysilane

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

Diiodomethyl-p-tolylsulfone

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

C.I. Pigment Green 7

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

Iron hydroxide oxide

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

C.I. Pigment Yellow 42

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

Mica muscovite

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

Barium sulfate

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

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)

Contains a component(s) that is/are not expected to be bioavailable due to the physical state of the material under normal handling and processing conditions.

Information for components:

Methyltrimethoxysilane

Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

Diiodomethyl-p-tolylsulfone

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

Gastrointestinal tract.
Salivary glands.
Thyroid.
Liver.

C.I. Pigment Green 7

Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

Iron hydroxide oxide

No relevant data found.

C.I. Pigment Yellow 42

Excessive exposure to dust may cause siderosis, a benign accumulation of iron in the lungs.

Mica muscovite

Excessive exposure may cause lung injury.

Repeated excessive exposure to crystalline silica may cause silicosis, a progressive and disabling disease of the lungs.

Barium sulfate

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

Lung.

Carcinogenicity

Contains a component(s) that is/are not expected to be bioavailable due to the physical state of the material under normal handling and processing conditions.

Information for components:

Methyltrimethoxysilane

No relevant data found.

Diiodomethyl-p-tolylsulfone

Animal testing and human experience demonstrate no significant risk of human cancer from exposure to relatively pure amorphous silica.

C.I. Pigment Green 7

No relevant data found.

Iron hydroxide oxide

No relevant data found.

C.I. Pigment Yellow 42

Did not cause cancer in laboratory animals.

Mica muscovite

No relevant data found.

Barium sulfate

Has caused cancer in laboratory animals. However, the route(s) of exposure were not relevant for industrial hazard evaluation. Chronic exposure to barium sulfate dust produces a

benign pneumoconiosis (lung disease) known as baritosis with no symptoms or changes in pulmonary function.

Teratogenicity

Contains component(s) which did not cause birth defects or any other fetal effects in lab animals.

Information for components:

Methyltrimethoxysilane

No relevant data found.

Diiodomethyl-p-tolylsulfone

Has been toxic to the fetus in laboratory animals at doses toxic to the mother. These effects have been shown to be associated with iodine toxicity; similar effects are unlikely in humans. Iodine levels due to use of this product are expected to be much lower than the maximum tolerable upper intake limits in humans for iodine as recommended by the World Health Organization. Did not cause birth defects in laboratory animals.

C.I. Pigment Green 7

No relevant data found.

Iron hydroxide oxide

No relevant data found.

C.I. Pigment Yellow 42

No relevant data found.

Mica muscovite

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

Barium sulfate

No relevant data found.

Reproductive toxicity

Contains component(s) which did not interfere with reproduction in animal studies. Contains component(s) which did not interfere with fertility in animal studies.

Information for components:

Methyltrimethoxysilane

No relevant data found.

Diiodomethyl-p-tolylsulfone

In laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals. These effects have been shown to be associated with iodine toxicity; similar effects are unlikely in humans. Iodine levels due to use of this product are expected to be much lower than the maximum tolerable upper intake limits in humans for iodine as recommended by the World Health Organization.

C.I. Pigment Green 7

No relevant data found.

Iron hydroxide oxide

No relevant data found.

C.I. Pigment Yellow 42

No relevant data found.

Mica muscovite

No relevant data found.

Barium sulfate

No relevant data found.

Mutagenicity

Contains component(s) which were negative in some animal genetic toxicity studies and positive in others. Positive findings were observed only at doses which produced significant inflammation.
Contains component(s) which were negative in some in vitro genetic toxicity studies and positive in others.

Information for components:

Methyltrimethoxysilane

No relevant data found.

Diiodomethyl-p-tolylsulfone

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

C.I. Pigment Green 7

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

Iron hydroxide oxide

No relevant data found.

C.I. Pigment Yellow 42

For similar material(s): In vitro genetic toxicity studies were negative.

Mica muscovite

No relevant data found.

Barium sulfate

For similar material(s): In vitro genetic toxicity studies were negative.

SECTION 12: ECOLOGICAL INFORMATION

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

12.1 Toxicity

Methyltrimethoxysilane

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, Oncorhynchus mykiss (rainbow trout), 96 Hour, > 110 mg/l, OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates

EC50, Daphnia magna (Water flea), flow-through test, 48 Hour, > 122 mg/l, OECD Test Guideline 202

Acute toxicity to algae/aquatic plants

ErC50, Pseudokirchneriella subcapitata (green algae), 72 Hour, Growth rate inhibition, > 120 mg/l, OECD Test Guideline 201

NOEC, Pseudokirchneriella subcapitata (green algae), 72 Hour, Growth rate inhibition, 120 mg/l, OECD Test Guideline 201

Diiodomethyl-p-tolylsulfone

Acute toxicity to fish

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

LC50, Oncorhynchus mykiss (rainbow trout), flow-through test, 96 Hour, 0.067 mg/l, OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates

LC50, Daphnia magna (Water flea), static test, 48 Hour, 0.071 - 8 mg/l, OECD Test Guideline 202 or Equivalent

EC50, Daphnia magna (Water flea), flow-through test, 48 Hour, 0.279 mg/l, OECD Test Guideline 202 or Equivalent

Acute toxicity to algae/aquatic plants

ErC50, Pseudokirchneriella subcapitata (green algae), 72 Hour, Growth rate inhibition, 0.102 mg/l, OECD Test Guideline 201 or Equivalent

Toxicity to Above Ground Organisms

Material is practically non-toxic to birds on an acute basis (LD50 > 2000 mg/kg).

Material is practically non-toxic to birds on a dietary basis (LC50 > 5000 ppm).

C.I. Pigment Green 7

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, Oncorhynchus mykiss (rainbow trout), static test, 96 Hour, 356 mg/l, Method Not Specified.

Acute toxicity to aquatic invertebrates

EC50, Daphnia magna (Water flea), Static, 48 Hour, > 500 mg/l, Directive 84/449/EEC, C.2

Acute toxicity to algae/aquatic plants

EC50, Desmodesmus subspicatus (green algae), Static, 72 Hour, > 100 mg/l, OECD Test Guideline 201

Chronic toxicity to aquatic invertebrates

NOEC, Daphnia magna, semi-static test, 21 d, Immobilization, > 1 mg/l

Iron hydroxide oxide

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, Leuciscus idus (Golden orfe), static test, 96 Hour, > 500 mg/l

Acute toxicity to aquatic invertebrates

EC50, Daphnia magna (Water flea), 48 Hour, > 100 mg/l, OECD Test Guideline 202

C.I. Pigment Yellow 42

Acute toxicity to fish

Not expected to be acutely toxic to aquatic organisms.

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

Acute toxicity to aquatic invertebrates

EC50, Daphnia magna (Water flea), 48 Hour, > 100 mg/l, OECD Test Guideline 202

Mica muscovite

Acute toxicity to fish

Not expected to be acutely toxic to aquatic organisms.

Barium sulfate

Acute toxicity to fish

Based on information for a similar material:

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

Acute toxicity to aquatic invertebrates

No toxicity at the limit of solubility

Based on data from similar materials

EC50, Daphnia magna (Water flea), 48 Hour, > 4 mg/l

Acute toxicity to algae/aquatic plants

Based on data from similar materials

NOEC, Pseudokirchneriella subcapitata (green algae), 72 Hour, > 100 mg/l, OECD Test Guideline 201

Based on data from similar materials

EC50, Pseudokirchneriella subcapitata (green algae), 72 Hour, > 100 mg/l, OECD Test Guideline 201

Toxicity to bacteria

Based on data from similar materials

EC50, 3 Hour, > 1,000 mg/l, OECD Test Guideline 209

Chronic toxicity to aquatic invertebrates

Based on data from similar materials

NOEC, Daphnia magna (Water flea), 21 d, 2.9 mg/l

12.2 Persistence and degradability

Methyltrimethoxysilane

Biodegradability: No relevant data found.

Diiodomethyl-p-tolylsulfone

Biodegradability: Inherent biodegradable test(s) with radiolabeled material shows complete primary biodegradation of the parent compound. This was coupled with limited mineralization (<20%) to radiolabeled CO₂ in the 28 day test. These results indicate that the material is susceptible to complete degradation consistent with inherent, primary biodegradability.

10-day Window: Fail

Biodegradation: 0 %

Exposure time: 28 d

Method: OECD Test Guideline 301F or Equivalent

10-day Window: Fail

Biodegradation: 10.8 - 13.8 %

Exposure time: 28 d

Method: OECD Test Guideline 301B or Equivalent

C.I. Pigment Green 7

Biodegradability: Material is not readily biodegradable according to OECD/EEC guidelines.

10-day Window: Fail

Biodegradation: 5 %

Exposure time: 28 d

Method: OECD Test Guideline 301C

Iron hydroxide oxide

Biodegradability: Biodegradation is not applicable.

C.I. Pigment Yellow 42

Biodegradability: Biodegradation is not applicable.

Mica muscovite

Biodegradability: Biodegradability is not applicable to inorganic substances.

Barium sulfate

Biodegradability: Biodegradation is not applicable.

12.3 Bioaccumulative potential

Methyltrimethoxysilane

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Partition coefficient: n-octanol/water(log Pow): -2.36

Diiodomethyl-p-tolylsulfone

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Partition coefficient: n-octanol/water(log Pow): 2.66 Measured

C.I. Pigment Green 7

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Bioconcentration factor (BCF): 0.51 - 74 Fish 42 d

Iron hydroxide oxide

Bioaccumulation: Partitioning from water to n-octanol is not applicable.

C.I. Pigment Yellow 42

Bioaccumulation: Partitioning from water to n-octanol is not applicable.

Mica muscovite

Bioaccumulation: Partitioning from water to n-octanol is not applicable.

Barium sulfate

Bioaccumulation: Partitioning from water to n-octanol is not applicable.

12.4 Mobility in soil

Methyltrimethoxysilane

No relevant data found.

Diiodomethyl-p-tolylsulfone

Potential for mobility in soil is medium (Koc between 150 and 500).

Partition coefficient (Koc): 200 Estimated.

C.I. Pigment Green 7

No relevant data found.

Iron hydroxide oxide

No relevant data found.

C.I. Pigment Yellow 42

No relevant data found.

Mica muscovite

No relevant data found.

Barium sulfate

No relevant data found.

12.5 Results of PBT and vPvB assessment

Methyltrimethoxysilane

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).

Diiodomethyl-p-tolylsulfone

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).

C.I. Pigment Green 7

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

Iron hydroxide oxide

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).

C.I. Pigment Yellow 42

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

Mica muscovite

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

Barium sulfate

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

12.6 Other adverse effects

Methyltrimethoxysilane

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

Diiodomethyl-p-tolylsulfone

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

C.I. Pigment Green 7

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

Iron hydroxide oxide

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

C.I. Pigment Yellow 42

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

Mica muscovite

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

Barium sulfate

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 | 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 SEA transport (IMO-IMDG):

14.1 UN 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 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	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.

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: Not 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.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H400	Very toxic to aquatic life.
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

Aquatic Chronic - 3 - H412 - 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

ACGIH	USA. ACGIH Threshold Limit Values (TLV)
Dow IHG	Dow Industrial Hygiene Guideline
GB EH40	UK. EH40 WEL - Workplace Exposure Limits
STEL	Short term exposure limit
TWA	Time weighted average
Acute Tox.	Acute toxicity
Aquatic Acute	Short-term (acute) aquatic hazard
Aquatic Chronic	Long-term (chronic) aquatic hazard
Eye Dam.	Serious eye damage
Flam. Liq.	Flammable liquids
Skin Sens.	Skin sensitisation

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.

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