

# **SAFETY DATA SHEET**

# THE DOW CHEMICAL COMPANY

Product name: DOWSIL™ 756 SMS Building Sealant White

**Issue Date:** 12/29/2022 **Print Date:** 12/30/2022

THE DOW CHEMICAL COMPANY 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.

# 1. IDENTIFICATION

Product name: DOWSIL™ 756 SMS Building Sealant White

Recommended use of the chemical and restrictions on use

**Identified uses:** Construction materials and additives

**COMPANY IDENTIFICATION** 

THE DOW CHEMICAL COMPANY 2211 H.H. DOW WAY MIDLAND MI 48674 UNITED STATES

**Customer Information Number:** 800-258-2436

SDSQuestion@dow.com

**EMERGENCY TELEPHONE NUMBER** 

24-Hour Emergency Contact: CHEMTREC +1 800-424-9300

**Local Emergency Contact:** 800-424-9300

# 2. HAZARDS IDENTIFICATION

#### **Hazard classification**

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin sensitisation - Category 1

Label elements Hazard pictograms



Signal word: WARNING!

#### **Hazards**

May cause an allergic skin reaction.

### **Precautionary statements**

#### Prevention

Avoid breathing dust.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing must not be allowed out of the workplace.

Wear protective gloves.

#### Response

IF ON SKIN: Wash with plenty of soap and water.

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

Wash contaminated clothing before reuse.

#### Disposal

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

#### Other hazards

No data available

# 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature: Silicone, Sealant

This product is a mixture.

Component	CASRN	Concentration
Vinyltri (methylethylketoxime) silane	2224-33-1	>= 0.7 - <= 0.76 %
Aminoethylaminoisobutylmethyldimethoxysilan e	23410-40-4	>= 0.31 - <= 0.34 %

### 4. FIRST AID MEASURES

# **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.

**General Business** 

**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.

#### Most important symptoms and effects, both acute and delayed:

May cause an allergic skin reaction.

### 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.

# 5. FIREFIGHTING MEASURES

# **Extinguishing media**

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

Unsuitable extinguishing media: None known...

# Special hazards arising from the substance or mixture

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

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

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

# 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures:** Remove all sources of ignition. Use personal protective equipment. Follow safe handling advice and personal protective equipment recommendations.

**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.

**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. Dispose of saturated absorbent or cleaning materials appropriately, since spontaneous heating may occur.

See sections: 7, 8, 11, 12 and 13.

# 7. HANDLING AND STORAGE

**Precautions for safe handling:** Do not get on skin or clothing. Avoid contact with eyes. Do not swallow. Protect from moisture. 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.

**Conditions for safe storage:** 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: Do not store in or use iron or steel containers.

# 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### **Control parameters**

If exposure limits exist, they are listed below. If no exposure limits are displayed, then no values are applicable.

Methanol	ACGIH	TWA		200 ppm
	Further information: Skin: Danger of cutaneous absorption			
	ACGIH	STEL		250 ppm
	Further information: Skin: D	anger of cutaneous absorption	on	
	OSHA Z-1	TWA	260 mg/m3	200 ppm
	OSHA P0	TWA	260 mg/m3	200 ppm
	Further information: X: Skin	notation		
	OSHA P0	STEL	325 mg/m3	250 ppm
	Further information: X: Skin	notation		

The following substance(s), which have Occupational Exposure Limit(s) (OEL), may be formed during handling or processing:, Methanol.

**Biological occupational exposure limits** 

Biological occupational expectate ininte						
Components	CAS-No.	Control	Biological	Sampling	Permissible	Basis
		parameters	specimen	time	concentration	

**General Business** 

Product name: DOWSIL™ 756 SMS Building Sealant White

Methanol 67-56-1 Methanol Urine End of 15 mg/l **ACGIH** 

> shift (As soon as possible after exposure

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BEI

ceases)

# **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

**Eve/face protection:** Use safety glasses (with side shields).

Skin protection

Hand protection: Use gloves chemically resistant to this material. 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"). 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, use an approved respirator. When respiratory protection is required, use an approved positive-pressure self-contained breathing apparatus or positivepressure airline with auxiliary self-contained air supply.

# 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance** 

Physical state paste

Color in accordance with the product description

Odor slight

**Odor Threshold** No data available pН Not applicable Melting point/range No data available Freezing point No data available **Boiling point (760 mmHg)** Not applicable Flash point Not applicable

**General Business** 

Product name: DOWSIL™ 756 SMS Building Sealant White

Evaporation Rate (Butyl Acetate Not applicable

= 1)

Flammability (solid, gas) Not classified as a flammability hazard

Lower explosion limitNo data availableUpper explosion limitNo data availableVapor PressureNot applicableRelative Vapor Density (air = 1)No data available

Relative Density (water = 1) 1.43

Water solubility No data available Partition coefficient: n- No data available

octanol/water

Auto-ignition temperature

Decomposition temperature

Dynamic Viscosity

Kinematic Viscosity

Explosive properties

No data available
Not applicable
Not applicable
Not explosive

**Oxidizing properties** The substance or mixture is not classified as oxidizing.

Molecular weightNo data availableParticle sizeNo data available

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

### 10. STABILITY AND REACTIVITY

Reactivity: Not classified as a reactivity hazard.

Chemical stability: Stable under normal conditions.

**Possibility of hazardous reactions:** Can react with strong oxidizing agents.

Conditions to avoid: Do not expose to temperatures above 212 °F/100 °C. Exposure to moisture

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

### **Hazardous decomposition products:**

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

# 11. TOXICOLOGICAL INFORMATION

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

### 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)

**General Business** 

# **Acute Toxicity Endpoints:**

Not classified based on available information.

### **Acute oral toxicity**

#### Information for the Product:

Very low toxicity if swallowed. 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:

### Vinyltri (methylethylketoxime) silane

LD50, Rat, > 2,000 mg/kg

# <u>Aminoethylaminoisobutylmethyldimethoxysilane</u>

LD50, Rat, male and female, 653 mg/kg OECD Test Guideline 401

This substance may hydrolyze to release Methanol. Methanol is highly toxic to humans and may cause central nervous system effects, visual disturbances up to blindness, metabolic acidosis, and degenerative damage to other organs including liver, kidney, and heart.

### 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:

### Vinyltri (methylethylketoxime) silane

LD50, Rat, > 2,000 mg/kg

# <u>Aminoethylaminoisobutylmethyldimethoxysilane</u>

LD50, Rabbit, male and female, > 2,000 mg/kg OECD Test Guideline 402 No deaths occurred at this concentration.

This substance may hydrolyze to release Methanol. Effects of methanol are the same as observed via oral and inhalation exposure and include central nervous system (CNS) depression, visual impairment up to blindness, metabolic acidosis, with effects on organ systems such as liver, kidneys and heart, even death.

### Acute inhalation toxicity

#### Information for the Product:

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:

### Vinyltri (methylethylketoxime) silane

The LC50 has not been determined.

### Aminoethylaminoisobutylmethyldimethoxysilane

LC50, Rat, male and female, 4 Hour, vapour, 0.6 mg/l OECD Test Guideline 403 No deaths occurred at this concentration.

This substance may hydrolyze to release Methanol. Inhalation of methanol may cause effects ranging from headache, narcosis and visual impairment to metabolic acidosis, blindness, and even death.

#### Skin corrosion/irritation

Not classified based on available information.

### Information for the Product:

Based on information for component(s): Brief contact is essentially nonirritating to skin. May cause drying and flaking of the skin.

### Information for components:

### Vinyltri (methylethylketoxime) silane

Brief contact may cause slight skin irritation with local redness.

### Aminoethylaminoisobutylmethyldimethoxysilane

Brief contact may cause slight skin irritation with local redness.

# Serious eye damage/eye irritation

Not classified based on available information.

### Information for the Product:

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

May cause mild eye discomfort.

# Information for components:

### Vinyltri (methylethylketoxime) silane

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

### Aminoethylaminoisobutylmethyldimethoxysilane

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

#### Sensitization

#### For skin sensitization:

May cause an allergic skin reaction.

# For respiratory sensitization:

Not classified based on available information.

#### Information for the Product:

For skin sensitization:

Contains component(s) which have caused allergic skin sensitization in guinea pigs. Contains component(s) which have demonstrated the potential for contact allergy in mice.

For respiratory sensitization:

No relevant information found.

### Information for components:

# Vinyltri (methylethylketoxime) silane

Has caused allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:

No relevant data found.

### Aminoethylaminoisobutylmethyldimethoxysilane

Has caused allergic skin reactions when tested in guinea pigs. Has demonstrated the potential for contact allergy in mice.

For respiratory sensitization:

No relevant data found.

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

Not classified based on available information.

#### Information for the Product:

Product test data not available.

#### Information for components:

# Vinyltri (methylethylketoxime) silane

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

# <u>Aminoethylaminoisobutylmethyldimethoxysilane</u>

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

# **Aspiration Hazard**

Not classified based on available information.

### Information for the Product:

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

### Information for components:

### Vinyltri (methylethylketoxime) silane

Based on available information, aspiration hazard could not be determined.

# <u>Aminoethylaminoisobutylmethyldimethoxysilane</u>

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)

Not classified based on available information.

### Information for the Product:

Product test data not available.

### Information for components:

### Vinyltri (methylethylketoxime) silane

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

# <u>Aminoethylaminoisobutylmethyldimethoxysilane</u>

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

# Carcinogenicity

Not classified based on available information.

#### Information for the Product:

Product test data not available.

# Information for components:

# Vinyltri (methylethylketoxime) silane

No relevant data found.

# Aminoethylaminoisobutylmethyldimethoxysilane

No relevant data found.

### **Teratogenicity**

Not classified based on available information.

### Information for the Product:

Product test data not available.

### Information for components:

# Vinyltri (methylethylketoxime) silane

No relevant data found.

# <u>Aminoethylaminoisobutylmethyldimethoxysilane</u>

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

# Reproductive toxicity

Not classified based on available information.

### Information for the Product:

Product test data not available.

#### Information for components:

# Vinyltri (methylethylketoxime) silane

No relevant data found.

# <u>Aminoethylaminoisobutylmethyldimethoxysilane</u>

In animal studies, did not interfere with fertility. In animal studies, did not interfere with reproduction.

# Mutagenicity

Not classified based on available information.

### Information for the Product:

Product test data not available.

### Information for components:

### Vinyltri (methylethylketoxime) silane

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

# <u>Aminoethylaminoisobutylmethyldimethoxysilane</u>

In vitro genetic toxicity studies were negative.

# 12. ECOLOGICAL INFORMATION

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

#### **Toxicity**

### Vinyltri (methylethylketoxime) silane

#### Acute toxicity to fish

Material is practically non-toxic to aquatic organisms on an acute basis

(LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

LC50, Oncorhynchus mykiss (rainbow trout), 96 Hour, > 120 mg/l, OECD Test Guideline 203

LC50, Oryzias latipes (Orange-red killifish), 96 Hour, > 100 mg/l, OECD Test Guideline 203

# Aminoethylaminoisobutylmethyldimethoxysilane

# Acute toxicity to fish

Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in the most sensitive species tested).

Based on data from similar materials

LC50, Bluegill sunfish (Lepomis macrochirus), static test, 96 Hour, 200 mg/l, EPA-660/3-75-009

## Acute toxicity to aquatic invertebrates

Based on data from similar materials

EC50, Daphnia magna (Water flea), static test, 48 Hour, 81 mg/l, Directive 67/548/EEC, Annex V, C.2.

# Acute toxicity to algae/aquatic plants

Based on data from similar materials

ErC50, Selenastrum capricornutum (green algae), 72 Hour, Growth rate, 8.8 mg/l, OECD Test Guideline 201

Based on data from similar materials

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

### Toxicity to bacteria

Based on data from similar materials

IC50, Pseudomonas putida, 16 Hour, 67 mg/l, DIN 38 412 Part 8

### Chronic toxicity to aquatic invertebrates

NOEC, Daphnia magna (Water flea), semi-static test, 21 d, number of offspring, > 1 mg/l

#### Persistence and degradability

### Vinyltri (methylethylketoxime) silane

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

10-day Window: Fail **Biodegradation:** 0 % **Exposure time:** 28 d

Method: OECD Test Guideline 301A

# Stability in Water (1/2-life)

Hydrolysis, DT50, < 1 min, Half-life Temperature 2 °C, OECD Test Guideline 111

# <u>Aminoethylaminoisobutylmethyldimethoxysilane</u>

**Biodegradability:** Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

**Biodegradation:** 11.1 %

Product name: DOWSIL™ 756 SMS Building Sealant White

Exposure time: 28 d

Method: OECD Test Guideline 301D

Bioaccumulative potential

Vinyltri (methylethylketoxime) silane

Bioaccumulation: No relevant data found.

<u>Aminoethylaminoisobutylmethyldimethoxysilane</u>

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

Partition coefficient: n-octanol/water(log Pow): -0.31 estimated

Mobility in soil

Vinyltri (methylethylketoxime) silane

No relevant data found.

<u>Aminoethylaminoisobutylmethyldimethoxysilane</u>

No relevant data found.

# 13. DISPOSAL CONSIDERATIONS

Disposal methods: DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Incinerator or other thermal destruction device. For additional information, refer to: Handling & Storage Information, MSDS Section 7 Stability & Reactivity Information, MSDS Section 10 Regulatory Information, MSDS Section 15

**Treatment and disposal methods of used packaging:** Empty containers should be recycled or otherwise disposed of by an approved waste management facility. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. Do not re-use containers for any purpose.

# 14. TRANSPORT INFORMATION

DOT

Not regulated for transport

Classification for SEA transport (IMO-IMDG):

Not regulated for transport

Transport in bulk Consult IMO regulations before transporting ocean bulk

General Business

according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code

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

Not regulated for transport

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.

# 15. REGULATORY INFORMATION

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

Respiratory or skin sensitisation

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313

The following components are subject to reporting levels established by SARA Title III, Section 313:

Components

**CASRN** 8007-18-9

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C.I. Pigment Yellow 53
Cobalt titanite green spinel

68186-85-6

### Pennsylvania Right To Know

The following chemicals are listed because of the additional requirements of Pennsylvania law:

Components	CASRN
Calcium carbonate treated with stearic acid	Not available
Dimethyl siloxane, trimethoxysilyl-terminated	2476425-14-4
Polydimethylsiloxane hydroxy-terminated	70131-67-8
Titanium dioxide	13463-67-7
C.I. Pigment Yellow 53	8007-18-9
Cobalt titanite green spinel	68186-85-6
Aluminum	7429-90-5

### California Prop. 65

WARNING: This product can expose you to chemicals including C.I. Pigment Yellow 53, Cobalt titanite green spinel, which is/are known to the State of California to cause cancer, and Methanol, Hexane, Toluene, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

#### United States TSCA Inventory (TSCA)

All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

# 16. OTHER INFORMATION

## **Hazard Rating System**

2/

#### **NFPA**

	Health	Flammability	Instability
	2	1	0
Н	MIS		
	Health	Flammability	Physical Hazard

1

#### Revision

Identification Number: 4104507 / A001 / Issue Date: 12/29/2022 / Version: 10.0 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)
ACGIH BEI	ACGIH - Biological Exposure Indices (BEI)
OSHA P0	USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)
OSHA Z-1	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air
	Contaminants
STEL	Short-term exposure limit
TWA	8-hour, time-weighted average

0

#### Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance: 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; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; 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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level: NOELR - No Observable Effect Loading Rate: NTP - National Toxicology Program; 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; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; 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.

THE DOW CHEMICAL COMPANY 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.