

## SAFETY DATA SHEET

THE DOW CHEMICAL COMPANY

#### Product name: DOWSIL™ 756 SMS Building Sealant Bronze

Issue Date: 08/02/2019 Print Date: 08/03/2019

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<sup>™</sup> 756 SMS Building Sealant Bronze

Recommended use of the chemical and restrictions on use Identified uses: Construction materials and additives

COMPANY IDENTIFICATION THE DOW CHEMICAL COMPANY 2030 DOW CENTER MIDLAND MI 48674-0000 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 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/ fume/ gas/ mist/ vapours/ spray. 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/ container to an approved waste disposal plant.

#### Other hazards

No data available

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

## Chemical nature: Silicone, Sealant

Component	CASRN	Concentration
C.I. Pigment Yellow 53	8007-18-9	<= 1.6 %
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; if effects occur, 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 persists. 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: No emergency medical treatment necessary.

#### 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.

#### 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.

### 5. FIREFIGHTING MEASURES

#### Extinguishing media

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

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

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

## 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:** Discharge into the environment must be avoided. 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, Sections 13 and 15 of this SDS provide information regarding certain local or national requirements. 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. Do not swallow. Avoid contact with eyes. 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. 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.

Component	Regulation	Type of listing	Value
C.I. Pigment Yellow 53	ACGIH	TWA	0.5 mg/m3, antimony
	Further information: URT irr: Upper Respiratory Tract irritation; skin irr: Skin irritation		
	ACGIH	TWA Inhalable	0.2 mg/m3 , Nickel
		fraction	-
	Further information: lung ca varies: varies	ancer: Lung cancer; A1: Con	firmed human carcinogen;
Methanol	ACGIH	TWA	200 ppm
	Further information: headache: Headache; nausea: Nausea; dizziness: Dizziness; eye dam: Eye damage; BEI: Substances for which there is a Biological Exposure Index or Indices (see BEI® section); Skin: Danger of cutaneous absorption		
	ACGIH STEL 250 pp		
	Further information: headache: Headache; nausea: Nausea; dizziness: Dizziness; eye dam: Eye damage; BEI: Substances for which there is a Biological Exposure Index or Indices (see BEI® section); Skin: Danger of cutaneous absorption		
	OSHA Z-1	TWA	260 mg/m3 200 ppm
	Further information: (b): The value in mg/m3 is approximate.		
	OSHA P0	STEL	325 mg/m3 250 ppm
	Further information: X: Skin	notation	
	OSHA P0	TWA	260 mg/m3 200 ppm
	Further information: X: Skin	notation	

Although some of the components of this product may have exposure guidelines, no exposure would be expected under normal handling conditions due to the physical state of the material. The following substance(s), which have Occupational Exposure Limit(s) (OEL), may be formed during handling or processing: Methanol.

#### **Biological occupational exposure limits**

Components	CAS-No.	Control	Biological	Sampling	Permissible	Basis
		parameters	specimen	time	concentration	
Methanol	67-56-1	Methanol	Urine	End of	15 mg/l	ACGIH
				shift (As		BEI
				soon as		
				possible		
				after		
				exposure		
				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

Eye/face protection: Use chemical goggles.

#### Skin protection

Hand protection: Use gloves chemically resistant to this material. 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"). 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 positive-pressure airline with auxiliary self-contained air supply. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Appearance

Physical state Color

paste in accordance with the product description

Odor	slight
Odor Threshold	No data available
рН	Not applicable
Melting point/range	No data available
Freezing point	No data available
Boiling point (760 mmHg)	Not applicable
Flash point	Not applicable
Evaporation Rate (Butyl Acetate	Not applicable
= 1)	
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)	1.43
Water solubility	No data available
Partition coefficient: n-	No data available
octanol/water	
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.
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.

## **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: Oxidizing agents

## 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 is available.

#### Acute toxicity

#### Acute oral toxicity

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

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

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

#### Acute dermal toxicity

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

As product: The dermal LD50 has not been determined.

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

#### 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.

#### Skin corrosion/irritation

Based on information for component(s): Brief contact is essentially nonirritating to skin.

#### Serious eye damage/eye irritation

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

#### Sensitization

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

For respiratory sensitization: No relevant information found.

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

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

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

For this family of materials: Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

#### Carcinogenicity

For this family of materials: Did not cause cancer in long-term animal studies which used routes of exposure considered relevant to industrial handling. Positive results have been reported in other

studies using routes of exposure not relevant to industrial handling. Both the National Toxicology Program (NTP) Third Annual Report on Carcinogens and the International Agency for Research on Cancer (IARC) Monographs cite limited evidence for carcinogenicity to humans of certain nickel compounds, and sufficient evidence for carcinogenicity to animals. However, both state that it is not possible to specify which specific nickel compounds might be carcinogenic to humans. Nickel Antimony Titanium Yellow Rutile is not listed in the groups of compounds thought to be carcinogenic to either humans or animals.

#### Teratogenicity

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

#### **Reproductive toxicity**

Contains component(s) which have been shown to interfere with reproduction in animal studies.

#### Mutagenicity

Contains a component(s) which were negative in in vitro genetic toxicity studies.

#### Aspiration Hazard

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

#### COMPONENTS INFLUENCING TOXICOLOGY:

#### Vinyltri (methylethylketoxime) silane

Acute inhalation toxicity The LC50 has not been determined.

#### Aminoethylaminoisobutylmethyldimethoxysilane

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

## Carcinogenicity

Component C.I. Pigment Yellow 53 List ACGIH Classification A1: Confirmed Human Carcinogen

## **12. ECOLOGICAL INFORMATION**

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

#### Toxicity

#### C.I. Pigment Yellow 53

Acute toxicity to fish LC50, Leuciscus idus (Golden orfe), 96 Hour, >10,000 mg/l, Method Not Specified.

#### Acute toxicity to aquatic invertebrates

EC50, Daphnia magna (Water flea), 48 Hour, >100 mg/l, Method Not Specified.

#### Acute toxicity to algae/aquatic plants

EC50, Algae (Scenedesmus subspicatus), 48 Hour, Not available, >100 mg/l, Method Not Specified.

**Toxicity to bacteria** 

EC50, Pseudomonas putida, 0.5 Hour, >10,000 mg/l

#### Chronic toxicity to aquatic invertebrates

NOEC, Daphnia magna (Water flea), 21 d, > 1 mg/l

#### 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

#### <u>Aminoethylaminoisobutylmethyldimethoxysilane</u>

#### 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, Cyprinus carpio (Carp), 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, 8.8 mg/l, OECD Test Guideline 201 Based on data from similar materials NOEC, Selenastrum capricornutum (green algae), 72 Hour, 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

#### C.I. Pigment Yellow 53

Biodegradability: Not readily biodegraded.

#### 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)

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

#### Aminoethylaminoisobutylmethyldimethoxysilane

**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 % **Exposure time:** 28 d **Method:** OECD Test Guideline 301D

#### Bioaccumulative potential

Vinyltri (methylethylketoxime) silane Bioaccumulation: No relevant data found.

#### Aminoethylaminoisobutylmethyldimethoxysilane

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3). **Partition coefficient:** n-octanol/water(log Pow): 1.4 estimated

#### Mobility in soil

#### Vinyltri (methylethylketoxime) silane

No relevant data found.

#### Aminoethylaminoisobutylmethyldimethoxysilane

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 Section10 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 Consult IMO regulations before transporting ocean bulk

Transport in bulk 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 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

ComponentsCASRNC.I. Pigment Yellow 538007-18-9Cobalt titanite green spinel68186-85-6

# Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) Section 103

Calculated RQ exceeds reasonably attainable upper limit.

Components	CASRN	RQ (RCRA Code)
Methanol	67-56-1	5000 lbs RQ
Methanol	67-56-1	100 lbs RQ (F003)
Toluene	108-88-3	1000 lbs RQ
Toluene	108-88-3	100 lbs RQ (F005)
Methanol	67-56-1	5000 lbs RQ
Methanol	67-56-1	100 lbs RQ (F003)

#### 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	Not available
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
Aluminium	7429-90-5

#### California Prop. 65

WARNING: This product can expose you to chemicals including Titanium dioxide, Carbon black, C.I. Pigment Yellow 53, Cobalt titanite green spinel, Silicon dioxide, 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
HMIS		
Health	Flammability	Physical Hazard

1

#### Revision

Identification Number: 4104929 / A001 / Issue Date: 08/02/2019 / Version: 8.0 Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

#### Legend

USA. ACGIH Threshold Limit Values (TLV)
ACGIH - Biological Exposure Indices (BEI)
USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air
Contaminants
Short-term exposure limit
8-hour, time-weighted average

0

#### Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; 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; 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.