

# SAFETY DATA SHEET

DOW SILICONES CORPORATION

## Product name: DOWSIL<sup>™</sup> 90-006-2 RF Base

Issue Date: 02/17/2020 Print Date: 01/21/2022

DOW SILICONES CORPORATION 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™ 90-006-2 RF Base

Recommended use of the chemical and restrictions on use Identified uses: Polymer

COMPANY IDENTIFICATION DOW SILICONES CORPORATION 2200 WEST SALZBURG ROAD MIDLAND MI 48686-0994 UNITED STATES

**Customer Information Number:** 

800-258-2436 SDSQuestion@dow.com

**EMERGENCY TELEPHONE NUMBER 24-Hour Emergency Contact:** 1 800 424 9300 **Local Emergency Contact:** 800-424-9300

# 2. HAZARDS IDENTIFICATION

Hazard classification

GHS classification in accordance with 29 CFR 1910.1200 Reproductive toxicity - Category 2

Label elements Hazard pictograms



Signal word: WARNING!

## Hazards

Suspected of damaging fertility or the unborn child.

## **Precautionary statements**

#### Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/ protective clothing/ eye protection/ face protection.

#### Response

IF exposed or concerned: Get medical advice/ attention.

#### Storage

Store locked up.

## Disposal

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

## Other hazards

No data available

# 3. COMPOSITION/INFORMATION ON INGREDIENTS

## Chemical nature: Silicone

This product is a mixture.

Component	CASRN	Concentration
Cristobalite	14464-46-1	>= 6.0 - <= 10.0 %
Quartz	14808-60-7	>= 0.34 - <= 0.46 %
Octamethyl Cyclotetrasiloxane	556-67-2	>= 0.11 - <= 0.15 %

## **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: Wash off with plenty of water.

**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. Skin contact may aggravate preexisting dermatitis.

# **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:** Carbon oxides. Silicon oxides. Nitrogen oxides (NOx). Oxides of phosphorus.

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

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

## 7. HANDLING AND STORAGE

**Precautions for safe handling:** Do not swallow. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. 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 locked up. 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.

## 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
Octamethyl	US WEEL	TWA	10 ppm
Cyclotetrasiloxane			

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.

## 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).

#### Skin protection

**Hand protection:** Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. 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: Wear clean, body-covering clothing.

**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.

The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

# 9. PHYSICAL AND CHEMICAL PROPERTIES

## Appearance

Appearance	
Physical state	paste
Color	red
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)	1.45
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	
Molecular weight	
Particle size	

The substance or mixture is not classified as oxidizing. No data available 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. When heated to temperatures above 180 °C (356 °F) in the presence of air, trace quantities of formaldehyde may be released. Adequate ventilation is required.

Conditions to avoid: None known.

Incompatible materials: Oxidizing agents

## Hazardous decomposition products:

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

# 11. TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data is 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)

#### Acute oral toxicity

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

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

## Information for components:

## **Cristobalite**

Single dose oral LD50 has not been determined.

## <u>Quartz</u>

Single dose oral LD50 has not been determined.

## Octamethyl Cyclotetrasiloxane

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

## Acute dermal toxicity

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

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

## Information for components:

## **Cristobalite**

The dermal LD50 has not been determined.

## <u>Quartz</u>

The dermal LD50 has not been determined.

## **Octamethyl Cyclotetrasiloxane**

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

#### 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:

## **Cristobalite**

Vapors are unlikely due to physical properties. Dust may cause irritation of the upper respiratory tract (nose and throat) and lungs. Excessive exposure may cause lung injury.

The LC50 has not been determined.

## <u>Quartz</u>

The LC50 has not been determined.

## Octamethyl Cyclotetrasiloxane

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

## Skin corrosion/irritation

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

## Information for components:

## **Cristobalite**

May cause skin irritation due to mechanical abrasion. May cause drying and flaking of the skin.

## <u>Quartz</u>

May cause skin irritation due to mechanical abrasion. May cause drying and flaking of the skin.

## Octamethyl Cyclotetrasiloxane

Brief contact is essentially nonirritating to skin.

## Serious eye damage/eye irritation

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

#### Information for components:

## **Cristobalite**

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

## <u>Quartz</u>

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

## Octamethyl Cyclotetrasiloxane

Essentially nonirritating to eyes.

## Sensitization

For skin sensitization: Contains component(s) which did not cause allergic skin sensitization in guinea pigs. Contains component(s) which have not demonstrated the potential for contact allergy in mice.

For respiratory sensitization: No relevant data found.

#### Information for components:

## **Cristobalite**

For skin sensitization: No relevant data found.

For respiratory sensitization: No relevant data found.

## <u>Quartz</u>

For skin sensitization: No relevant data found.

For respiratory sensitization: No relevant data found.

## Octamethyl Cyclotetrasiloxane

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

For respiratory sensitization: No relevant data found.

## Specific Target Organ Systemic Toxicity (Single Exposure)

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

#### Information for components:

## **Cristobalite**

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

## <u>Quartz</u>

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

## **Octamethyl Cyclotetrasiloxane**

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

#### Aspiration Hazard

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

## Information for components:

## Cristobalite

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

## Quartz

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

## Octamethyl Cyclotetrasiloxane

May be harmful if swallowed and enters airways.

# 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:

## **Cristobalite**

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

For similar material(s):

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

Kidney.

Due to the physical state of the material, this component is not expected to be bioavailable under normal handling and processing conditions.

## <u>Quartz</u>

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

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

Due to the physical state of the material, this component is not expected to be bioavailable under normal handling and processing conditions.

## Octamethyl Cyclotetrasiloxane

In animals, effects have been reported on the following organs: Kidney. Liver. Respiratory tract. Female reproductive organs.

## Carcinogenicity

For similar material(s): 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. Contains an additional component(s) that is not expected to be bioavailable due to the physical state of the material under normal handling and processing conditions.

## Information for components:

## **Cristobalite**

Has caused cancer in humans. Has caused cancer in laboratory animals. Due to the physical state of the material, this component is not expected to be bioavailable under normal handling and processing conditions.

## <u>Quartz</u>

Has caused cancer in humans. Has caused cancer in laboratory animals. Due to the physical state of the material, this component is not expected to be bioavailable under normal handling and processing conditions.

## Octamethyl Cyclotetrasiloxane

Results from a 2 year repeated vapour inhalation exposure study to rats of octamethylcyclotetrasiloxane (D4) indicate effects (benign uterine adenomas) in the uterus of female animals. This finding occurred at the highest exposure dose (700 ppm) only. Studies to date have not demonstrated if these effects occur through pathways that are relevant to humans. Repeated exposure in rats to D4 resulted in protoporphyrin accumulation in the liver. Without knowledge of the specific mechanism leading to the protoporphyrin accumulation the relevance of this finding to humans is unknown.

## Teratogenicity

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

## Information for components:

## **Cristobalite**

For similar material(s): Did not cause birth defects or any other fetal effects in laboratory animals.

## <u>Quartz</u>

For similar material(s): Did not cause birth defects or any other fetal effects in laboratory animals.

## Octamethyl Cyclotetrasiloxane

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

## **Reproductive toxicity**

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

## Information for components:

## **Cristobalite**

No relevant data found.

## <u>Quartz</u>

No relevant data found.

## Octamethyl Cyclotetrasiloxane

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

## **Mutagenicity**

Contains component(s) which were negative in some in vitro genetic toxicity studies and positive in others.

## Information for components:

## **Cristobalite**

For similar material(s): In vitro genetic toxicity studies were negative in some cases and positive in other cases.

## <u>Quartz</u>

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

## Octamethyl Cyclotetrasiloxane

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

# 12. ECOLOGICAL INFORMATION

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

## Toxicity

## **Cristobalite**

Acute toxicity to fish Not expected to be acutely toxic to aquatic organisms.

## Acute toxicity to aquatic invertebrates

Based on data from similar materials EC50, Daphnia magna (Water flea), 48 Hour, > 100 mg/l

## <u>Quartz</u>

## Acute toxicity to fish

Not expected to be acutely toxic to aquatic organisms.

## **Octamethyl Cyclotetrasiloxane**

Acute toxicity to fish Not expected to be acutely toxic to aquatic organisms. No toxicity at the limit of solubility LC50, Oncorhynchus mykiss (rainbow trout), flow-through, 96 Hour, > 0.022 mg/l No toxicity at the limit of solubility LC50, Cyprinodon variegatus (sheepshead minnow), flow-through, 14 d, > 0.0063 mg/l

## Acute toxicity to aquatic invertebrates

No toxicity at the limit of solubility EC50, Mysidopsis bahia (opossum shrimp), flow-through test, 96 Hour, > 0.0091 mg/l

No toxicity at the limit of solubility EC50, Daphnia magna (Water flea), flow-through test, 48 Hour, > 0.015 mg/l

## Acute toxicity to algae/aquatic plants

No toxicity at the limit of solubility ErC50, Pseudokirchneriella subcapitata (green algae), 72 Hour, Growth rate, > 0.022 mg/l

## Chronic toxicity to fish

No toxicity at the limit of solubility NOEC, Oncorhynchus mykiss (rainbow trout), 93 d, >= 0.0044 mg/l

## Chronic toxicity to aquatic invertebrates

No toxicity at the limit of solubility NOEC, Daphnia magna (Water flea), 21 d, >= 0.0079 mg/l

## Persistence and degradability

## **Cristobalite**

Biodegradability: Biodegradation is not applicable.

## <u>Quartz</u>

Biodegradability: Biodegradation is not applicable.

## Octamethyl Cyclotetrasiloxane

Biodegradability: Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.
10-day Window: Not applicable
Biodegradation: 3.7 %
Exposure time: 28 d
Method: OECD Test Guideline 310

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

Hydrolysis, DT50, 69.3 - 144 Hour, pH 7, Half-life Temperature 24.6 °C, OECD Test Guideline 111

Photodegradation Atmospheric half-life: 16 d Method: Estimated.

## **Bioaccumulative potential**

## **Cristobalite**

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

## **Quartz**

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

## Octamethyl Cyclotetrasiloxane

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

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

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

Mobility in soil

**Cristobalite** 

No relevant data found.

## <u>Quartz</u>

No relevant data found.

## Octamethyl Cyclotetrasiloxane

Expected to be relatively immobile in soil (Koc > 5000).

# **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**

Transport in bulk

**IBC or IGC Code** 

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

DOT

Not regulated for transport

Classification for SEA transport (IMO-IMDG):

Not regulated for transport Consult IMO regulations before transporting ocean bulk

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 Reproductive toxicity

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

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

## Pennsylvania Right To Know

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

Components	CASRN
Polydimethylsiloxane hydroxy-terminated	70131-67-8
Iron oxide	1332-37-2
Cristobalite	14464-46-1
Diatomaceous earth, Flux-calcined	68855-54-9
Ethyl polysilicate	11099-06-2

## California Prop. 65

This product contains a chemical that is at or below California Propositions 65's "safe harbor level" as determined via a risk assessment. Therefore, the chemical is not required to be listed as a Prop 65 chemical on the SDS or label.

## 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

NFPA

	Health	Flammability	Instability
	0	1	0
НМ	IS		
	Health	Flammability	Physical Hazard
	0*	4	0

\* = Chronic Effects (See Hazards Identification)

## Revision

Identification Number: 4102987 / A713 / Issue Date: 02/17/2020 / Version: 9.0 Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

## Legend

TWA	8-hr TWA
US WEEL	USA. Workplace Environmental Exposure Levels (WEEL)

## 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.

DOW SILICONES CORPORATION 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. US



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DOW SILICONES CORPORATION

## Product name: DOWSIL<sup>™</sup> 90-006-2 RF Catalyst

Issue Date: 07/02/2020 Print Date: 01/21/2022

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# **1. IDENTIFICATION**

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Recommended use of the chemical and restrictions on use Identified uses: Vulcanising agents

## COMPANY IDENTIFICATION

DOW SILICONES CORPORATION 2200 WEST SALZBURG ROAD MIDLAND MI 48686-0994 UNITED STATES

**Customer Information Number:** 

800-258-2436 SDSQuestion@dow.com

**EMERGENCY TELEPHONE NUMBER 24-Hour Emergency Contact:** 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. 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 This product is a mixture

Component	CASRN	Concentration
Chromium oxide (Cr2O3)	1308-38-9	>= 1.0 - < 5.0 %
Bis[(2-ethyl-2,5- dimethylhexanoyl)oxy](dimethyl)stannane	68928-76-7	>= 1.0 - < 5.0 %

## 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. Suitable emergency safety shower facility should be available in work area.

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

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

## 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:** May cause asthma-like (reactive airways) symptoms. Bronchodilators, expectorants, antitussives and corticosteroids may be of help. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Repeated excessive exposure may aggravate preexisting lung disease.

# 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: Carbon oxides. Silicon oxides. Metal oxides. Nitrogen oxides (NOx).

**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..

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:** 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. Prevent spreading over a wide area (e.g. by containment or oil

barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

**Methods and materials for containment and cleaning up:** Soak up with inert absorbent material. Clean up remaining materials from spill with suitable absorbant. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container. See sections: 7, 8, 11, 12 and 13.

# 7. HANDLING AND STORAGE

**Precautions for safe handling:** Do not get on skin or clothing. Avoid inhalation of vapour or mist. Avoid contact with eyes. Do not swallow. Take care to prevent spills, waste and minimize release to the environment. Handle in accordance with good industrial hygiene and safety practice. CONTAINERS MAY BE HAZARDOUS WHEN EMPTY. Since emptied containers retain product residue follow all (M)SDS and label warnings even after container is emptied. Use only with adequate ventilation. See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

**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: None known.

# 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
Chromium oxide (Cr2O3)	OSHA Z-1	TWA	0.5 mg/m3, chromium
	ACGIH	TWA Inhalable	0.003 mg/m3 ,
		fraction	chromium
		: Upper Respiratory Tract irri man carcinogen; varies: vari	tation; skin irr: Skin irritation; es
Bis[(2-ethyl-2,5- dimethylhexanoyl)oxy](dimet hyl)stannane	OSHA Z-1	TWA	0.1 mg/m3 ,Tin
• /	ACGIH	TWA	0.1 mg/m3 ,Tin
	Further information: A4: No cutaneous absorption	t classifiable as a human car	cinogen; Skin: Danger of
	ACGIH	STEL	0.2 mg/m3 ,Tin
	Further information: A4: No cutaneous absorption	t classifiable as a human car	cinogen; Skin: Danger of

## 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).

## **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, 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.

The following should be effective types of air-purifying respirators: Organic vapor cartridge.

Appearance	
Physical state	viscous liquid
Color	green
Odor	slight
Odor Threshold	No data available
рН	No data available
Melting point/range	No data available
Freezing point	No data available
Boiling point (760 mmHg)	> 35 °C (> 95 °F)
Flash point	closed cup >93.3 °C (199.9 °F)
Flash point Evaporation Rate (Butyl Acetate = 1)	closed cup >93.3 °C (199.9 °F) No data available
Evaporation Rate (Butyl Acetate	•
Evaporation Rate (Butyl Acetate = 1)	No data available
Evaporation Rate (Butyl Acetate = 1) Flammability (solid, gas)	No data available Not applicable
Evaporation Rate (Butyl Acetate = 1) Flammability (solid, gas) Lower explosion limit	No data available Not applicable No data available
Evaporation Rate (Butyl Acetate = 1) Flammability (solid, gas) Lower explosion limit Upper explosion limit	No data available Not applicable No data available No data available

# 9. PHYSICAL AND CHEMICAL PROPERTIES

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	9,700 mPa.s
Kinematic Viscosity	No data available
Explosive properties	Not explosive
Oxidizing properties	The substance or mixture is not classified as oxidizing.
Molecular weight	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. When heated to temperatures above 180 °C (356 °F) in the presence of air, trace quantities of formaldehyde may be released. Adequate ventilation is required. Vapours may form explosive mixture with air.

Conditions to avoid: None known.

Incompatible materials: Oxidizing agents

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

# 11. TOXICOLOGICAL INFORMATION

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

Information on likely routes of exposure

Inhalation, Eye contact, Skin contact, Ingestion.

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

## Acute oral toxicity

Very low toxicity if swallowed. Swallowing may result in gastrointestinal irritation. May cause nausea and vomiting.

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

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

Information for components:

## Chromium oxide (Cr2O3)

LD50, Rat, male, > 15,000 mg/kg OECD Test Guideline 401

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

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

#### 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:

## Chromium oxide (Cr2O3)

The dermal LD50 has not been determined.

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

LD50, Rat, > 2,000 mg/kg

## Acute inhalation toxicity

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

As product: The LC50 has not been determined.

## Information for components:

## Chromium oxide (Cr2O3)

No adverse effects are anticipated from single exposure to dust. Excessive exposure may cause irritation to upper respiratory tract (nose and throat) and lungs.

LC50, Rat, male and female, 4 Hour, dust/mist, > 5.41 mg/l OECD Test Guideline 403

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

As product: The LC50 has not been determined.

## Skin corrosion/irritation

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

#### Information for components:

## Chromium oxide (Cr2O3)

Brief contact is essentially nonirritating to skin.

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

Brief contact may cause 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:

## Chromium oxide (Cr2O3)

Essentially nonirritating to eyes. Corneal injury is unlikely.

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

May cause slight 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:

#### Chromium oxide (Cr2O3)

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

For respiratory sensitization: No relevant data found.

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

Has caused allergic skin reactions when tested in guinea pigs.

For respiratory sensitization: No relevant data found.

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

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

## Information for components:

## Chromium oxide (Cr2O3)

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

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

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:

## Chromium oxide (Cr2O3)

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

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

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 component(s) which have been reported to cause effects on the following organs in animals: Blood kidney Liver Immune system.

## Information for components:

## Chromium oxide (Cr2O3)

Based on animal data, breathing high concentrations of dust may produce inflammation in the lungs.

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

In animals, effects have been reported on the following organs: Blood Kidney Liver Immune system.

## Carcinogenicity

Contains a component(s) which did not cause cancer in long-term animal studies which used routes of exposure considered relevant to industrial handling.

#### Information for components:

## Chromium oxide (Cr2O3)

Did not cause cancer in laboratory animals.

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

No relevant data found.

## Teratogenicity

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

#### Information for components:

## Chromium oxide (Cr2O3)

For similar material(s): Did not cause birth defects or any other fetal effects in laboratory animals.

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

No relevant data found.

## **Reproductive toxicity**

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

#### Information for components:

## Chromium oxide (Cr2O3)

In animal studies, did not interfere with fertility.

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

No relevant data found.

## Mutagenicity

Contains component(s) which were negative in some in vitro genetic toxicity studies and positive in others. Genetic toxicity studies in animals were negative for component(s) tested.

## Information for components:

## Chromium oxide (Cr2O3)

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

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

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

# **12. ECOLOGICAL INFORMATION**

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

## Toxicity

## Chromium oxide (Cr2O3)

Acute toxicity to fish Not expected to be acutely toxic to aquatic organisms.

LC50, Danio rerio (zebra fish), static test, 96 Hour, > 10,000 mg/l, ISO 7346/1

## Acute toxicity to algae/aquatic plants

EC50, Desmodesmus subspicatus (green algae), 72 Hour, > 848.6 mg/l, OECD Test Guideline 201

## Toxicity to bacteria

EC50, 3 Hour, > 10,000 mg/l

## Chronic toxicity to fish

NOEC, Danio rerio (zebra fish), 30 d, 1,000 mg/l

## Chronic toxicity to aquatic invertebrates

No toxicity at the limit of solubility NOEC, Daphnia magna (Water flea), 21 d, > 0.02 mg/l

## Bis[(2-ethyl-2,5-dimethylhexanoyl)oxy](dimethyl)stannane Acute toxicity to fish

Material is slightly toxic to aquatic organisms on an acute basis (LC50/EC50 between 10 and 100 mg/L in the most sensitive species tested).

For similar material(s):

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

## Acute toxicity to aquatic invertebrates

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

## Acute toxicity to algae/aquatic plants

ErC50, Algae (Scenedesmus subspicatus), Growth rate, 72 Hour, Growth rate, 7.6 mg/l, OECD Test Guideline 201 or Equivalent For similar material(s): NOEC, Algae (Scenedesmus subspicatus), Growth rate, 72 Hour, Growth rate, 1.1 mg/l, OECD Test Guideline 201 or Equivalent

## Toxicity to bacteria

For similar material(s): EC50, Bacteria, 3 Hour, Respiration rates., 14 mg/l

## Persistence and degradability

## Chromium oxide (Cr2O3)

**Biodegradability:** Biodegradation is not applicable.

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

Biodegradability: For similar material(s): Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability.
For similar material(s): 10-day Window: Fail
Biodegradation: 3 %
Exposure time: 28 d
Method: OECD Test Guideline 301F or Equivalent

## **Bioaccumulative potential**

## Chromium oxide (Cr2O3)

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3). **Partition coefficient: n-octanol/water(log Pow):** 2.97 Estimated. **Bioconcentration factor (BCF):** 39 Fish Estimated.

## Bis[(2-ethyl-2,5-dimethylhexanoyl)oxy](dimethyl)stannane Bioaccumulation: No relevant data found.

## Mobility in soil

## Chromium oxide (Cr2O3)

Potential for mobility in soil is high (Koc between 50 and 150). **Partition coefficient (Koc):** 80 Estimated.

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

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**

Transport in bulk

**IBC or IGC Code** 

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

DOT

Not regulated for transport

Classification for SEA transport (IMO-IMDG):

Not regulated for transport Consult IMO regulations before transporting ocean bulk

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 Chromium oxide (Cr2O3) Chromium oxide (Cr2O3) Chromium oxide (Cr2O3)

## Pennsylvania Right To Know

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

## Components

Siloxanes and silicones, dimethyl Chromium oxide (Cr2O3)

CASRN 63148-62-9 1308-38-9

## California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

## **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

NFPA

	•		
	Health	Flammability	Instability
	0	1	0
HMIS	1		
	Health	Flammability	Physical Hazard
	2/	1	0

## Revision

Identification Number: 4102989 / A713 / Issue Date: 07/02/2020 / Version: 9.0 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)
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

## 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.

DOW SILICONES CORPORATION 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.