

# **SAFETY DATA SHEET**

THE DOW CHEMICAL COMPANY

Product name: DOWSIL™ 3145 RTV Mil-A-46146

Adhesive/Sealant Clear

Issue Date: 09/04/2020

Print Date: 01/04/2021

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™ 3145 RTV Mil-A-46146 Adhesive/Sealant Clear

Recommended use of the chemical and restrictions on use

Identified uses: Electrical industry and electronics Adhesive, binding agents

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 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 elastomer

This product is a mixture.

Component	CASRN Concentration	
Methyltrimethoxysilane	1185-55-3	>= 5.0 - <= 8.0 %
Octamethyl Cyclotetrasiloxane	556-67-2	>= 0.14 - <= 0.25 %
Methanol	67-56-1	>= 0.1 - <= 0.18 %

## 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.

Page 2 of 18

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

Ingestion: Rinse mouth with water. No emergency medical treatment necessarv.

## 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 respiratory sensitization or asthma-like symptoms. Bronchodilators, expectorants and antitussives may be of help. Treat bronchospasm with inhaled beta2 agonist and oral or parenteral corticosteroids. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Excessive exposure may aggravate preexisting asthma and other respiratory disorders (e.g. emphysema, bronchitis, reactive airways dvsfunction syndrome).

## **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.

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..

Issue Date: 09/04/2020

7

## 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. 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.

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. 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
Methyltrimethoxysilane	Dow IHG	TWA		7.5 ppm
	Further information: Skin Se	ensitizer		
Octamethyl	US WEEL	TWA		10 ppm
Cyclotetrasiloxane				
Methanol	ACGIH	TWA		200 ppm
	Further information: Skin: Danger of cutaneous absorption			
	ACGIH	STEL		250 ppm
	Further information: Skin: Danger of cutaneous absorption			
	OSHA Z-1	TWA	260 mg/m3	200 ppm

Page 4 of 18

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 parameters	Biological specimen	Sampling time	Permissible concentration	Basis
Methanol	67-56-1	Methanol	Urine	End of shift (As soon as possible after exposure ceases)	15 mg/l	ACGIH BEI

## **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, 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.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance** 

Physical state paste

Color white translucent

Odor slight

Odor Threshold No data available

Page 5 of 18

Issue Date: 09/04/2020 Product name: DOWSIL™ 3145 RTV Mil-A-46146 Adhesive/Sealant

Clear

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

**Evaporation Rate (Butyl Acetate** 

= 1)

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

Lower explosion limit No data available Upper explosion limit No data available **Vapor Pressure** Not applicable No data available **Relative Vapor Density (air = 1)** 

Relative Density (water = 1)

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

octanol/water

No data available **Auto-ignition temperature** No data available **Decomposition temperature Dynamic Viscosity** Not applicable **Kinematic Viscosity** Not applicable **Explosive properties** Not explosive

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

No data available Molecular weight 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. 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. Methanol.

Page 6 of 18

## 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.

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

## Based on information for component(s):

LD50, > 5,000 mg/kg Estimated.

#### Information for components:

## Methyltrimethoxysilane

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

## Octamethyl Cyclotetrasiloxane

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

## **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. Effects may be delayed. LD50, Rat, > 5,000 mg/kg

Lethal Dose, Humans, 340 mg/kg Estimated.

Lethal Dose, Humans, 29 - 237 ml Estimated.

## Acute dermal toxicity

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

#### Based on product testing:

LD50, Rabbit, male and female, > 2,000 mg/kg OECD 402 or equivalent

#### Information for components:

## Methyltrimethoxysilane

LD50, Rabbit, male and female, > 9,500 mg/kg OECD 402 or equivalent

## Octamethyl Cyclotetrasiloxane

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

## **Methanol**

Clear

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. LD50. Rabbit. 15.800 mg/kg

Issue Date: 09/04/2020

## Acute inhalation toxicity

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

As product: The LC50 has not been determined.

#### Information for components:

## Methyltrimethoxysilane

LC50, Rat, male and female, 6 Hour, vapour, > 7605 ppm OECD Test Guideline 403

## Octamethyl Cyclotetrasiloxane

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

#### Methano

Easily attainable vapor concentrations may cause serious adverse effects, even death. At lower concentrations: May cause respiratory irritation and central nervous system depression. Symptoms may include headache, dizziness and drowsiness, progressing to incoordination and unconsciousness. Inhalation of methanol may cause effects ranging from headache, narcosis and visual impairment to metabolic acidosis, blindness, and even death. Effects may be delayed.

LC50, Rat, 4 Hour, vapour, 3 mg/l

#### Skin corrosion/irritation

Based on product testing:

Brief contact may cause slight skin irritation with local redness.

## Information for components:

## <u>Methyltrimethoxysilane</u>

Brief contact may cause slight skin irritation with local redness.

## Octamethyl Cyclotetrasiloxane

Brief contact is essentially nonirritating to skin.

#### Methanol

Prolonged contact may cause slight skin irritation with local redness.

#### Serious eye damage/eye irritation

Based on product testing:
May cause slight temporary eye irritation.
Corneal injury is unlikely.

## Information for components:

## **Methyltrimethoxysilane**

May cause slight temporary eye irritation.

Page 8 of 18

Issue Date: 09/04/2020

Corneal injury is unlikely.

#### **Octamethyl Cyclotetrasiloxane**

Essentially nonirritating to eyes.

## <u>Methanol</u>

May cause eye irritation.

#### Sensitization

For skin sensitization:

Based on product testing:

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

For respiratory sensitization:

No relevant data found.

## Information for components:

## **Methyltrimethoxysilane**

For skin sensitization:

Has caused allergic skin reactions when tested in guinea pigs.

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.

#### Methanol

For skin sensitization:

No relevant data found.

For respiratory sensitization:

No relevant data found.

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

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

## Information for components:

## Methyltrimethoxysilane

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

#### Octamethyl Cyclotetrasiloxane

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

## **Methanol**

Causes damage to organs.

Route of Exposure: Oral

Target Organs: Eyes, Central nervous system

Page 9 of 18

Clear

## Aspiration Hazard

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

## Information for components:

#### Methyltrimethoxysilane

May be harmful if swallowed and enters airways.

## Octamethyl Cyclotetrasiloxane

May be harmful if swallowed and enters airways.

#### Methanol

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)**

Based on available data for the component(s), repeated exposures are not anticipated to cause significant adverse effects.

## Information for components:

## Methyltrimethoxysilane

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

## Octamethyl Cyclotetrasiloxane

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

Kidnev.

Liver.

Respiratory tract.

Female reproductive organs.

## **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.

## Carcinogenicity

No relevant data found.

## Information for components:

## **Methyltrimethoxysilane**

No relevant data found.

## **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

Page 10 of 18

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

#### Methano

Did not cause cancer in laboratory animals.

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:

#### Methyltrimethoxysilane

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.

#### Methanol

Methanol has caused birth defects in mice at doses nontoxic to the mother as well as slight behavioral effects in offspring of rats.

#### Reproductive toxicity

In animal studies on component(s), effects on reproduction were seen only at doses that produced significant toxicity to the parent animals. Contains component(s) which have interfered with fertility in animal studies.

## Information for components:

## **Methyltrimethoxysilane**

In animal studies, did not interfere with reproduction.

#### **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.

#### Methanol

In animal studies, did not interfere with reproduction.

#### Mutagenicity

Based on product testing. In vitro genetic toxicity studies were negative.

## Information for components:

## Methyltrimethoxysilane

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

#### **Octamethyl Cyclotetrasiloxane**

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

#### Methanol

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

Issue Date: 09/04/2020

## 12. ECOLOGICAL INFORMATION

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

## **Toxicity**

## **Methyltrimethoxysilane**

## 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, > 110 mg/l, OECD Test Guideline 203 or Equivalent

#### Acute toxicity to aquatic invertebrates

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

## Acute toxicity to algae/aquatic plants

ErC50, Pseudokirchneriella subcapitata (green algae), 72 Hour, Growth rate inhibition, > 3.6 mg/l. OECD Test Guideline 201

NOEC, Pseudokirchneriella subcapitata (green algae), 72 Hour, Growth rate inhibition, >= 3.6 mg/l. OECD Test Guideline 201

#### Toxicity to bacteria

EC10, activated sludge, 3 Hour, Respiration rates., > 100 mg/l, OECD Test Guideline 209

#### Chronic toxicity to aquatic invertebrates

NOEC, Daphnia magna (Water flea), 28 d, number of offspring, >= 10 mg/l

## 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

Page 12 of 18

Clear

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

#### **Methanol**

#### 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, Bluegill sunfish (Lepomis macrochirus), flow-through test, 96 Hour, 15,400 mg/l

Issue Date: 09/04/2020

#### Acute toxicity to aquatic invertebrates

LC50, Daphnia magna (Water flea), 48 Hour, > 10,000 mg/l

## Acute toxicity to algae/aquatic plants

ErC50, Pseudokirchneriella subcapitata (green algae), 96 Hour, Growth rate, 22,000 mg/l, OECD Test Guideline 201 or Equivalent

## Toxicity to bacteria

IC50, activated sludge, 3 Hour, Respiration rates., > 1,000 mg/l, OECD Test Guideline 209

#### Chronic toxicity to fish

NOEC, Oryzias latipes (Orange-red killifish), 200 Hour, 15,800 mg/l

## Persistence and degradability

## **Methyltrimethoxysilane**

**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: 54 % Exposure time: 28 d

Method: Regulation (EC) No. 440/2008, Annex, C.4-A

## 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.

Page 13 of 18

Clear

**Methanol** 

Biodegradability: Material is readily biodegradable. Passes OECD test(s) for ready

Issue Date: 09/04/2020

biodegradability.

Theoretical Oxygen Demand: 1.50 mg/mg

Chemical Oxygen Demand: 1.49 mg/mg Dichromate

**Biological oxygen demand (BOD)** 

Incubation Time	BOD
5 d	72 %
20 d	79 %

**Photodegradation** 

Test Type: Half-life (indirect photolysis)

Sensitization: OH radicals Atmospheric half-life: 8 - 18 d

Method: Estimated.

## **Bioaccumulative potential**

Methyltrimethoxysilane

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

Partition coefficient: n-octanol/water(log Pow): -0.82 Estimated.

**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

Methanol

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

Partition coefficient: n-octanol/water(log Pow): -0.77 Measured

Bioconcentration factor (BCF): < 10 Leuciscus idus (Golden orfe) Measured

Mobility in soil

**Methyltrimethoxysilane** 

No relevant data found.

**Octamethyl Cyclotetrasiloxane** 

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

Methanol

Potential for mobility in soil is very high (Koc between 0 and 50).

Partition coefficient (Koc): 0.44 Estimated.

Page 14 of 18

Clear

#### 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 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 transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

Page 15 of 18

Issue Date: 09/04/2020

## 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 Hexamethyldisilazane reaction with Silica 68909-20-6 Methyltrimethoxysilane 1185-55-3

#### California Prop. 65

WARNING: This product can expose you to chemicals including Methanol, 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**

	Health	Flammability	Instability
	1	1	0
HMIS			
	Health	Elammahility	Physical

Health	Flammability	Physical Hazard
1*	1	0

<sup>\* =</sup> Chronic Effects (See Hazards Identification)

#### Revision

Identification Number: 2768003 / A001 / Issue Date: 09/04/2020 / Version: 8.0

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)

Dow IHG	Dow Industrial Hygiene Guideline	
OSHA Z-1	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air	
	Contaminants	
STEL	Short-term exposure limit	
TWA	Time weighted average	
US WEEL	USA. Workplace Environmental Exposure Levels (WEEL)	

Issue Date: 09/04/2020

#### 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 - Verv 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.

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Page 17 of 18

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Page 18 of 18