

# **SAFETY DATA SHEET**

# THE DOW CHEMICAL COMPANY

Product name: DOWSIL™ 888 Silicone Joint Sealant

Issue Date: 01/09/2020 Print Date: 01/10/2020

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™ 888 Silicone Joint Sealant

Recommended use of the chemical and restrictions on use

Identified uses: Construction materials and additives

**COMPANY IDENTIFICATION** 

THE DOW CHEMICAL COMPANY 2030 DOW CENTER MIDLAND MI 48674-0000 UNITED STATES

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

SDSQuestion@dow.com

**EMERGENCY TELEPHONE NUMBER** 

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

Local Emergency Contact: 800-424-9300

# 2. HAZARDS IDENTIFICATION

# **Hazard classification**

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

# Label elements Hazard pictograms





Signal word: WARNING!

#### Hazards

Causes serious eye irritation.

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.

Wash skin thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Wear protective gloves, protective clothing, eye protection and/or face protection.

#### Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF exposed or concerned: Get medical advice and/or attention. If eye irritation persists: Get medical advice and/or attention.

#### Storage

Store locked up.

#### **Disposal**

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

#### Other hazards

No data available

# 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature: Silicone, Sealant

This product is a mixture.

Component	CASRN	Concentration
		_
Methylvinyl bis(N-ethylacetamido)silane	87855-59-2	>= 0.5 - <= 2.8 %
Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine	68952-53-4	>= 0.8 - <= 2.2 %
N-ethylacetamide	625-50-3	>= 0.08 - <= 0.42 %
Quartz	14808-60-7	<= 0.41 %
Impurities in methylvinylbis(Nethylacetamido)silane	Not available	>= 0.04 - <= 0.21 %
Octamethyl Cyclotetrasiloxane	556-67-2	>= 0.03 - <= 0.21 %

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# 4. FIRST AID MEASURES

# Description of first aid measures General advice:

First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

**Inhalation:** Move person to fresh air; if effects occur, consult a physician.

**Skin contact:** Wash off with plenty of water. Suitable emergency safety shower facility should be available in work area.

**Eye contact:** Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available.

**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). Formaldehyde.

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

# Advice for firefighters

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**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 get on skin or clothing. Do not swallow. Do not get in eyes. Take care to prevent spills, waste and minimize release to the environment. Handle in accordance with good industrial hygiene and safety practice.

Use only with adequate ventilation. See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

**Conditions for safe storage:** Keep in properly labelled containers. Store 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 chemical goggles.

# Skin protection

Hand protection: Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Butyl rubber. Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl alcohol ("PVA"). Polyvinyl chloride ("PVC" or "vinyl"). Viton. Examples of acceptable glove barrier materials include: Natural rubber ("latex"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

**Other protection:** Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

**Respiratory protection:** Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, 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** 

Physical state paste

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Color grey
Odor Fishy

Odor Threshold

pH

Not applicable

Melting point/range

No data available

No data available

No data available

No data available

Not applicable

Flash point closed cup 100 °C (212 °F)

Evaporation Rate (Butyl Acetate Not applicable

= 1)

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

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

Relative Density (water = 1) 1.48

Water solubility

Partition coefficient: n
No data available

No data available

octanol/water

Auto-ignition temperatureNo data availableDecomposition temperatureNo data availableDynamic ViscosityNot applicableKinematic ViscosityNot applicableExplosive propertiesNot explosive

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

Molecular weightNo data availableParticle sizeNo data available

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

#### 10. STABILITY AND REACTIVITY

Reactivity: Not classified as a reactivity hazard.

Chemical stability: Stable under normal conditions.

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

Conditions to avoid: None known.

**Incompatible materials:** Oxidizing agents

Hazardous decomposition products:

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

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# 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, Rat, > 5,000 mg/kg Estimated.

#### Information for components:

#### Methylvinyl bis(N-ethylacetamido)silane

LD50, Rat, 500 mg/kg Acute toxicity estimate

# <u>Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine</u>

Single dose oral LD50 has not been determined.

#### N-ethylacetamide

Based on data from similar materials LD50, Rat, 3,950 mg/kg

# Quartz

Single dose oral LD50 has not been determined.

#### Impurities in methylvinylbis(N-ethylacetamido)silane

Acute toxicity estimate, 500 mg/kg Expert judgement

# 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.

As product: The dermal LD50 has not been determined.

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

# Information for components:

# Methylvinyl bis(N-ethylacetamido)silane

LD50, Rat, > 2,000 mg/kg

# <u>Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine</u>

The dermal LD50 has not been determined.

#### N-ethylacetamide

The dermal LD50 has not been determined.

#### Quartz

The dermal LD50 has not been determined.

# Impurities in methylvinylbis(N-ethylacetamido)silane

Based on data from similar materials LD50, Rat, > 2,000 mg/kg

#### 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:

# Methylvinyl bis(N-ethylacetamido)silane

The LC50 has not been determined.

# <u>Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with</u> hydroxydiethylamine

The LC50 has not been determined.

# N-ethylacetamide

Based on data from similar materials LC0, Rat, 8 Hour, vapour, 2.19 mg/l No deaths occurred following exposure to a saturated atmosphere.

#### Quartz

The LC50 has not been determined.

### Impurities in methylvinylbis(N-ethylacetamido)silane

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 may cause slight skin irritation with local redness.

May cause drying and flaking of the skin.

### Information for components:

# Methylvinyl bis(N-ethylacetamido)silane

Brief contact may cause slight skin irritation with local redness.

# <u>Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with</u> hydroxydiethylamine

For similar material(s):

Brief contact may cause skin irritation with local redness.

# N-ethylacetamide

Brief contact may cause slight skin irritation with local redness.

#### Quartz

May cause skin irritation due to mechanical abrasion.

May cause drying and flaking of the skin.

# Impurities in methylvinylbis(N-ethylacetamido)silane

Brief contact may cause slight skin irritation with local redness.

# **Octamethyl Cyclotetrasiloxane**

Brief contact is essentially nonirritating to skin.

# Serious eye damage/eye irritation

Based on information for component(s):

May cause severe eye irritation.

May cause corneal injury.

# Information for components:

#### Methylvinyl bis(N-ethylacetamido)silane

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

# <u>Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with</u>

# hydroxydiethylamine

For similar material(s):

May cause eye irritation.

# N-ethylacetamide

May cause slight eye irritation.

#### Quartz

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

#### Impurities in methylvinylbis(N-ethylacetamido)silane

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

# Octamethyl Cyclotetrasiloxane

Essentially nonirritating to eyes.

### Sensitization

For skin sensitization:

Contains component(s) which did not cause allergic skin sensitization in guinea pigs.

For respiratory sensitization:

No relevant data found.

# Information for components:

# Methylvinyl bis(N-ethylacetamido)silane

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

For respiratory sensitization:

No relevant data found.

# <u>Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine</u>

For skin sensitization:

No relevant data found.

For respiratory sensitization:

No relevant data found.

# N-ethylacetamide

For similar material(s):

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

For respiratory sensitization:

No relevant data found.

Based on data from similar materials

#### Quartz

For skin sensitization:

No relevant data found.

For respiratory sensitization:

No relevant data found.

#### Impurities in methylvinylbis(N-ethylacetamido)silane

Did not cause 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.

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

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

### Information for components:

# Methylvinyl bis(N-ethylacetamido)silane

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

# <u>Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with</u> hydroxydiethylamine

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

#### N-ethylacetamide

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

#### Quartz

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

# Impurities in methylvinylbis(N-ethylacetamido)silane

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

#### **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:

#### Methylvinyl bis(N-ethylacetamido)silane

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

# <u>Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine</u>

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

#### N-ethylacetamide

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

#### Quartz

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

# Impurities in methylvinylbis(N-ethylacetamido)silane

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

# **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)

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

#### Information for components:

### Methylvinyl bis(N-ethylacetamido)silane

No relevant data found.

# <u>Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine</u>

No relevant data found.

#### N-ethylacetamide

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

#### Quartz

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.

#### Impurities in methylvinylbis(N-ethylacetamido)silane

No relevant data found.

# **Octamethyl Cyclotetrasiloxane**

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

Kidney.

Liver.

Respiratory tract.

Female reproductive organs.

#### 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. 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:

#### Methylvinyl bis(N-ethylacetamido)silane

No relevant data found.

# <u>Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with</u> hydroxydiethylamine

No relevant data found.

#### N-ethylacetamide

No relevant data found.

#### Quartz

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.

# Impurities in methylvinylbis(N-ethylacetamido)silane

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 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 caused birth defects in lab animals at doses nontoxic to the mother.

# Information for components:

#### Methylvinyl bis(N-ethylacetamido)silane

No relevant data found.

# <u>Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with</u> hydroxydiethylamine

No relevant data found.

### N-ethylacetamide

Has caused birth defects in laboratory animals at doses nontoxic to the mother.

### Quartz

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

# Impurities in methylvinylbis(N-ethylacetamido)silane

No relevant data found.

#### **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:

# Methylvinyl bis(N-ethylacetamido)silane

In animal studies, has been shown to interfere with reproduction. In animal studies, has been shown to interfere with fertility.

# <u>Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with</u> hydroxydiethylamine

No relevant data found.

#### N-ethylacetamide

No relevant data found.

# **Quartz**

No relevant data found.

# Impurities in methylvinylbis(N-ethylacetamido)silane

In animal studies, has been shown to interfere with reproduction. In animal studies, has been shown to interfere with fertility.

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

# Information for components:

# Methylvinyl bis(N-ethylacetamido)silane

In vitro genetic toxicity studies were negative.

# <u>Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with</u>

<u>hydroxydiethylamine</u>

No relevant data found.

### N-ethylacetamide

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

#### Quartz

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

# Impurities in methylvinylbis(N-ethylacetamido)silane

In vitro genetic toxicity studies were negative.

# **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**

#### Methylvinyl bis(N-ethylacetamido)silane

#### 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).

LC50, Danio rerio (zebra fish), 96 Hour, > 100 mg/l

LC50, Oncorhynchus mykiss (rainbow trout), 96 Hour, > 100 mg/l, OECD Test Guideline 203 NOEC, Oncorhynchus mykiss (rainbow trout), 96 Hour, 50 mg/l

### Acute toxicity to aquatic invertebrates

EC50, Daphnia magna (Water flea), 48 Hour, 69 mg/l, OECD Test Guideline 202

# Acute toxicity to algae/aquatic plants

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

NOEC, Pseudokirchneriella subcapitata (green algae), 72 Hour, 100 mg/l

# <u>Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine</u> Acute toxicity to aquatic invertebrates

Material is highly toxic to aquatic organisms on an acute basis (LC50/EC50 between 0.1 and 1 mg/L in the most sensitive species tested).

Based on data from similar materials

EC50, Daphnia magna (Water flea), 48 Hour, > 0.11 - 1 mg/l

#### N-ethylacetamide

#### 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). Based on data from similar materials

LC50, Leuciscus idus (Golden orfe), 96 Hour, 3,390 mg/l, DIN 38412

### Acute toxicity to aquatic invertebrates

Based on data from similar materials

EC50, Daphnia magna (Water flea), 48 Hour, > 580 mg/l, DIN 38412

# Acute toxicity to algae/aquatic plants

Based on data from similar materials

EC50, Desmodesmus subspicatus (green algae), 96 Hour, > 500 mg/l

# Toxicity to bacteria

Based on data from similar materials

EC10, Pseudomonas putida, 17 Hour, > 10,000 mg/l, DIN 38 412 Part 8

#### Quartz

#### 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/aguatic 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

#### Methylvinyl bis(N-ethylacetamido)silane

**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:** 62.66 %

Method: OECD Test Guideline 301B

# Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine

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

10-day Window: Fail For similar material(s):

**Biodegradation:** 0.43 % **Exposure time:** 29 d

Method: OECD Test Guideline 301B

#### N-ethylacetamide

Biodegradability: Material is ultimately biodegradable (reaches > 70% mineralization in

OECD test(s) for inherent biodegradability). Based on data from similar materials

**Biodegradation:** 100 % **Exposure time:** 6 d

#### Quartz

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.

Product name: DOWSIL™ 888 Silicone Joint Sealant

#### Bioaccumulative potential

#### Methylvinyl bis(N-ethylacetamido)silane

Bioaccumulation: No relevant data found.

#### Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine

Bioaccumulation: No relevant data found.

#### N-ethylacetamide

Bioaccumulation: No relevant data found.

#### 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

#### Methylvinyl bis(N-ethylacetamido)silane

No relevant data found.

#### Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine

No relevant data found.

#### N-ethylacetamide

No relevant data found.

#### Quartz

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 Section 10 Regulatory Information, MSDS Section 15

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**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.

### 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

Serious eye damage or eye irritation

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.

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

Calculated RQ exceeds reasonably attainable upper limit.

Components CASRN RQ (RCRA Code)

Diethylamine 109-89-7 100 lbs RQ

#### Pennsylvania Right To Know

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

ComponentsCASRNLimestone1317-65-3Polydimethylsiloxane hydroxy-terminated70131-67-8

#### 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
	2	1	0
Н	MIS		

#### HMIS

Health	Flammability	Physical Hazard
2*	1	0

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

#### Revision

Identification Number: 4105349 / A001 / Issue Date: 01/09/2020 / Version: 11.0 Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

#### Legend

g	
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

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maximal inhibitory concentration: ICAO - International Civil Aviation Organization: IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO -International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO -International Organisation for Standardization: KECI - Korea Existing Chemicals Inventory: LC50 -Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA -Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA -Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory: TSCA - Toxic Substances Control Act (United States): UN - United Nations: UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

#### **Information Source and References**

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

THE DOW CHEMICAL COMPANY urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.