

## SAFETY DATA SHEET

**DOW CHEMICAL (AUSTRALIA) PTY LTD** 

Product name: DOWSIL™ 793T Glazing Sealant Translucent Issue Date: 16.09.2019

**Print Date:** 17.09.2019

DOW CHEMICAL (AUSTRALIA) PTY LTD 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.

## SECTION 1: IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product name: DOWSIL™ 793T Glazing Sealant Translucent

Recommended use of the chemical and restrictions on use

**Identified uses:** Construction materials and additives

**COMPANY IDENTIFICATION** 

DOW CHEMICAL (AUSTRALIA) PTY LTD LEVEL 29 367 COLLINS STREET MELBOURNE VIC 3000 AUSTRALIA

Customer Information Number: 1800-780-074

SDSQuestion@dow.com

**EMERGENCY TELEPHONE NUMBER** 

**24-Hour Emergency Contact**: 1800-033-882 **Local Emergency Contact**: 1800-033-882

For advice, contact a doctor (at once) or the Australian Poisons Information Centre: 131 126

**Transport Emergency Only Dial** 000

## **SECTION 2: HAZARD(S) IDENTIFICATION**

## **GHS Classification**

Skin corrosion/irritation - Category 2 Serious eye damage/eye irritation - Category 2A Skin sensitisation - Category 1

GHS label elements Hazard pictograms



Signal word: WARNING!

#### **Hazard statements**

Causes skin irritation.

May cause an allergic skin reaction.

Causes serious eye irritation.

#### **Precautionary statements**

#### Prevention

Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

Wash skin thoroughly after handling.

Use only outdoors or in a well-ventilated area.

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

Wear protective gloves/ eye protection/ face protection.

#### Response

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

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

If eye irritation persists: Get medical advice/ attention.

Take off contaminated clothing and wash before reuse.

#### **Disposal**

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

#### Other hazards

No data available

# SECTION 3: COMPOSITION AND INFORMATION ON INGREDIENTS, IN ACCORDANCE WITH SCHEDULE 8

This product is a mixture.

Component	CASRN	Concentration
2-Butanone, O,O',O"- (methylsilylidyne)trioxime	22984-54-9	>= 2.5 - < 10.0 %
Silicon dioxide	7631-86-9	>= 1.0 - < 10.0 %
3-Aminopropyltriethoxysilane	919-30-2	>= 1.0 - < 3.0 %
Methyltri(ethylmethylketoxime)sila ne isomers and oligomers	Not available	>= 0.1 - < 1.0 %
Bis[(2-ethyl-2,5-dimethylhexanoyl)oxy](dimethyl)s tannane	68928-76-7	>= 0.1 - < 0.25 %

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Methyl Ethyl Ketoxime 96-29-7  $\Rightarrow$  0.1 - < 0.25 %

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## **SECTION 4: FIRST AID MEASURES**

## Description of first aid measures

## General advice:

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

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

**Skin contact:** Remove material from skin immediately by washing with soap and plenty of water. Remove contaminated clothing and shoes while washing. Seek medical attention if irritation persists. Wash clothing before reuse. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands. 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. Suitable emergency eye wash facility should be available in work area.

**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.

## **SECTION 5: FIREFIGHTING MEASURES**

#### **Hazchem Code**

None Allocated

#### **Extinguishing media**

Suitable extinguishing media: Alcohol-resistant foam. Carbon dioxide (CO2).

Unsuitable extinguishing media: None known...

#### Special hazards arising from the substance or mixture

**Hazardous combustion products:** Carbon oxides. Silicon oxides. Nitrogen oxides (NOx). Chlorine compounds. Formaldehyde.

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**Unusual Fire and Explosion Hazards:** Exposure to combustion products may be a hazard to health.. Applying foam initially will release significant amounts of corrosive hydrogen chloride vapors which will be reduced when uniform blanketing is achieved..

## Advice for firefighters

**Fire Fighting Procedures:** Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations..

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Suppress (knock down) gases/vapours/mists with a water spray jet. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.

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

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

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

**Environmental precautions:** Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

**Methods and materials for containment and cleaning up:** knock down the corrosive vapor cloud downwind of the spill area. Flammable hydrogen gas may also be generated and trapped under the foam blanket. Wipe up or scrape up and contain for salvage or disposal. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, Sections 13 and 15 of this SDS provide information regarding certain local or national requirements. Dispose of saturated absorbent or cleaning materials appropriately, since spontaneous heating may occur.

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

## SECTION 7: HANDLING AND STORAGE, INCLUDING HOW THE CHEMICAL MAY BE SAFELY USED

**Precautions for safe handling:** Do not get on skin or clothing. Do not swallow. Do not get in eyes. Keep away from water. Protect from moisture. Take care to prevent spills, waste and minimize release to the environment. Handle in accordance with good industrial hygiene and safety practice. Use only with adequate ventilation. See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

**Conditions for safe storage:** Keep in properly labelled containers. Store locked up. Store in accordance with the particular national regulations. In general chlorosilanes containing Silicon-Hydride (SiH) must be stored in pressurized packaging but some exceptions do exist. In any case the

material should not be repacked without guidance from Dow Corning's packaging experts. Store in a closed container.

Do not store with the following product types: Strong oxidizing agents. Unsuitable materials for containers: Do not store in or use iron or steel containers.

## **SECTION 8: EXPOSURE CONTROLS AND 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
Silicon dioxide	Dow IHG	TWA Respirable	0.2 mg/m3
		fraction.	_
	AU OEL	TWA Respirable dust	2 mg/m3
3-Aminopropyltriethoxysilane	Dow IHG	TWA	0.5 mg/m3
Bis[(2-ethyl-2,5-	ACGIH	TWA	0.1 mg/m3 , Tin
dimethylhexanoyl)oxy](dimet			<b>G</b> ,
hyl)stannane			
	Upper Respiratory Tract irri	I nervous system; immune e itation; headache: Headache classifiable as a human carcir es: varies	; eye irr: Eye irritation;
	ACGIH	STEL	0.2 mg/m3 , Tin
	Upper Respiratory Tract irri	I nervous system; immune e itation; headache: Headache classifiable as a human carcir es: varies	; eye irr: Eye irritation;
	AU OEL	TWA	0.1 mg/m3 , Tin
	Further information: (g): Some compounds in these groups are classified as carcinogenic or as sensitisers. Check individual classification details on the safety sheet for information on classification.; Sk: Skin absorption		
	AU OEL	STEL	0.2 mg/m3,Tin
	carcinogenic or as sensitise	me compounds in these grou ers. Check individual classific essification.; Sk: Skin absorpt	ation details on the safety data
Methyl Ethyl Ketoxime	US WEEL	TWA	10 ppm
		Dermal Sensitization Notation	
	Dow IHG	TWA	0.15 ppm
	Further information: Skin S		1.000
Ethanol	ACGIH	TWA	1,000 ppm
	ACGIH	r: Upper Respiratory Tract irri STEL	
		r: Upper Respiratory Tract irri	1,000 ppm
	AU OEL	TWA	1,880 mg/m3 1,000
	AO OLL	IVVA	
			ppm

Although some of the components of this product may have exposure guidelines, no exposure would be expected under normal handling conditions due to the physical state of the material.

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

Methyl ethyl ketoxime

Ethanol

## **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 chemical resistant gloves classified under standard AS/NZS 2161.10: Protective gloves against chemicals and micro-organisms. 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"). When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to AS/NZS 2161.10) is recommended. When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to AS/NZS 2161.10) is recommended. 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.

**Other Information:** Selection and use of personal protective equipment should be in accordance with the recommendations in one or more of the relevant Australian/New Zealand Standards, including:

AS/NZS 1336: Eye and face protection – Guidelines.

AS/NZS 1337: Personal eye protection - Eye and face protectors for occupational applications.

AS/NZS 1715: Selection, use and maintenance of respiratory protective equipment.

AS/NZS 2161: Occupational protective gloves.

AS/NZS 2210: Occupational protective footwear.

AS/NZS 4501: Occupational protective clothing Set

#### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**Appearance** 

Physical state paste

**Color** white translucent

**Odor** slight

Odor Threshold No data available

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pH 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

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

Relative Density (water = 1) 1.03

Water solubility

No data available

Partition coefficient: n
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.

## **SECTION 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. Hazardous decomposition products will be formed at elevated temperatures.

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

Incompatible materials: Water Oxidizing agents

## **Hazardous decomposition products:**

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

Ethanol.

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## **SECTION 11: TOXICOLOGICAL INFORMATION**

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

#### **Acute toxicity**

## Acute oral toxicity

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

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

Based on information for component(s):

LD50, > 5,000 mg/kg Estimated.

#### Acute dermal toxicity

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

As product: The dermal LD50 has not been determined.

Based on information for component(s):

LD50, > 2,000 mg/kg Estimated.

#### **Acute inhalation toxicity**

At room temperature, exposure to vapor is minimal due to low volatility; single exposure is not likely to be hazardous. Vapor from heated material may cause respiratory irritation.

As product: The LC50 has not been determined.

#### Skin corrosion/irritation

Brief contact may cause skin irritation with local redness.

#### Serious eve damage/eye irritation

May cause moderate eye irritation.

#### Sensitization

For skin sensitization:

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

Contains component(s) which have demonstrated the potential for contact allergy in mice.

For respiratory sensitization:

No relevant data found.

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

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

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

Contains component(s) which have been reported to cause effects on the following organs in animals: Kidney.

Liver.

Central nervous system.

Blood.

Respiratory tract.

## Carcinogenicity

Contains component(s) which have caused cancer in laboratory animals. During use of the material, small amounts of methylethylketoxime (MEKO) will be released. Rodents exposed to chronic MEKO inhalation throughout their lifetimes showed significant increases in liver tumour rates.

#### **Teratogenicity**

Contains component(s) which caused birth defects in laboratory animals only at doses toxic to the mother.

### Reproductive toxicity

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

### Mutagenicity

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

## **Aspiration Hazard**

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

#### COMPONENTS INFLUENCING TOXICOLOGY:

## 2-Butanone, O,O',O"-(methylsilylidyne)trioxime

## **Acute inhalation toxicity**

The LC50 has not been determined.

## Silicon dioxide

## **Acute inhalation toxicity**

Maximum attainable concentration. LC50, Rat, 4 Hour, dust/mist, > 2.08 mg/l No deaths occurred at this concentration.

## 3-Aminopropyltriethoxysilane

## Acute inhalation toxicity

LC50, Rat, male, 6 Hour, vapour, > 5 ppm No deaths occurred at this concentration.

LC50, Rat, female, 6 Hour, vapour, > 16 ppm No deaths occurred at this concentration.

LC50, Rat, male and female, 4 Hour, Aerosol, > 7.35 mg/l

#### Methyltri(ethylmethylketoxime)silane isomers and oligomers

#### Acute inhalation toxicity

The LC50 has not been determined.

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

## Acute inhalation toxicity

The LC50 has not been determined.

#### Methyl Ethyl Ketoxime

## Acute inhalation toxicity

LC50, Rat, male and female, 4 Hour, dust/mist, > 4.83 mg/l OECD Test Guideline 403

## **SECTION 12: ECOLOGICAL INFORMATION**

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

## **Ecotoxicity**

#### 2-Butanone, O,O',O"-(methylsilylidyne)trioxime

## 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).

For the hydrolysis product(s)

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

### Acute toxicity to aquatic invertebrates

For the hydrolysis product(s)

EC50, Daphnia magna (Water flea), static test, 48 Hour, > 120 mg/l, OECD Test Guideline 202

## Acute toxicity to algae/aquatic plants

For the hydrolysis product(s)

EC50, Selenastrum capricornutum (green algae), Static, 72 Hour, Growth rate, 94 mg/l, OECD Test Guideline 201

For the hydrolysis product(s)

NOEC, Selenastrum capricornutum (green algae), Static, 72 Hour, Growth rate, 30 mg/l, OECD Test Guideline 201

## Chronic toxicity to fish

NOEC, Oryzias latipes (Orange-red killifish), flow-through test, 14 d, 50 mg/l

#### Chronic toxicity to aquatic invertebrates

NOEC, Daphnia magna, semi-static test, 21 d, > 100 mg/l

## Silicon dioxide

#### 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, Danio rerio (zebra fish), 96 Hour, 5,000 - 10,000 mg/l

#### Acute toxicity to aquatic invertebrates

EC50, Daphnia magna (Water flea), 24 Hour, > 1,000 mg/l

## Acute toxicity to algae/aquatic plants

EC50, Pseudokirchneriella subcapitata (green algae), 72 Hour, Biomass, 440 mg/l

#### 3-Aminopropyltriethoxysilane

## 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. Danio rerio (zebra fish), semi-static test, 96 Hour. > 934 mg/l

#### Acute toxicity to aquatic invertebrates

EC50, Daphnia magna (Water flea), static test, 48 Hour, 331 mg/l

## Acute toxicity to algae/aquatic plants

ErC50, Desmodesmus subspicatus (green algae), static test, 72 Hour, Growth rate inhibition, > 1,000 mg/l

## Toxicity to bacteria

EC50, Pseudomonas putida, Respiration inhibition, 5.75 Hour, 43 mg/l

## Methyltri(ethylmethylketoxime)silane isomers and oligomers

### Acute toxicity to fish

No relevant data found.

## 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

For similar material(s):

EC50, Daphnia magna, static test, 48 Hour, 17 mg/l, OECD Test Guideline 202 or Equivalent

## Acute toxicity to algae/aquatic plants

For similar material(s):

ErC50, Algae (Scenedesmus subspicatus), Growth rate, 72 Hour, Growth rate, 37 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

## Methyl Ethyl Ketoxime

#### 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, Lepomis macrochirus (Bluegill sunfish), static test, 96 Hour, 48 mg/l, OECD Test Guideline 203 or Equivalent

## Acute toxicity to aquatic invertebrates

EC50, Daphnia magna (Water flea), static test, 48 Hour, 201 mg/l, Method Not Specified.

## Acute toxicity to algae/aquatic plants

EC50, Scenedesmus capricornutum (fresh water algae), static test, 72 Hour, Growth rate, 11.8 mg/l, OECD Test Guideline 201 or Equivalent

NOEC, Scenedesmus capricornutum (fresh water algae), 72 Hour, 2.56 mg/l, OECD Test Guideline 201 or Equivalent

#### Toxicity to bacteria

EC50, Bacteria, 17 Hour, 281 mg/l

#### Chronic toxicity to fish

NOEC, Oryzias latipes (Orange-red killifish), 14 d, survival, 50 mg/l

## Chronic toxicity to aquatic invertebrates

NOEC, Daphnia magna (Water flea), 21 d, number of offspring, > 100 mg/l

## Persistence and degradability

## 2-Butanone, O,O',O"-(methylsilylidyne)trioxime

Biodegradability: Based on information for a similar material: This material rapidly

hydrolyzes to products that are either readily or ultimately biodegradable.

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

Method: OECD Test Guideline 301A

#### Silicon dioxide

**Biodegradability:** Biodegradation is not applicable.

### 3-Aminopropyltriethoxysilane

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.

10-day Window: Fail **Biodegradation:** 67 % Exposure time: 28 d

Method: OECD Test Guideline 301A or Equivalent

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

Hydrolysis, half-life, 8.5 Hour, pH 7, Half-life Temperature 24.7 °C

## Methyltri(ethylmethylketoxime)silane isomers and oligomers

Biodegradability: No relevant data found.

## 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

## **Methyl Ethyl Ketoxime**

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. Material is inherently biodegradable (reaches > 20% biodegradation in OECD test(s) for inherent biodegradability).

10-day Window: Not applicable

**Biodegradation:** 70 % Exposure time: 14 d

Method: OECD Test Guideline 302B or Equivalent

Theoretical Oxygen Demand: 2.57 mg/mg

**Photodegradation** 

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Test Type: Half-life (indirect photolysis)

**Sensitization:** OH radicals **Atmospheric half-life:** 7.211 d

**Method:** Estimated.

## **Bioaccumulative potential**

## 2-Butanone, O,O',O"-(methylsilylidyne)trioxime

Bioaccumulation: Bioconcentration potential is low (BCF less than 100 or log Pow greater

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than 7).

Partition coefficient: n-octanol/water(log Pow): 11.2

#### Silicon dioxide

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

#### 3-Aminopropyltriethoxysilane

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3). **Partition coefficient:** n-octanol/water(log Pow): 1.7 at 20 °C Calculated.

Bioconcentration factor (BCF): 3.4 Cyprinus carpio (Carp) 56 d

## Methyltri(ethylmethylketoxime)silane isomers and oligomers

Bioaccumulation: No relevant data found.

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

**Bioaccumulation:** No relevant data found.

## Methyl Ethyl Ketoxime

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

Partition coefficient: n-octanol/water(log Pow): 0.63 Measured

Bioconcentration factor (BCF): <= 5.8 Cyprinus carpio (Carp) 42 d Measured

## **Mobility in Soil**

## 2-Butanone, O,O',O"-(methylsilylidyne)trioxime

No relevant data found.

## Silicon dioxide

No relevant data found.

#### 3-Aminopropyltriethoxysilane

No relevant data found.

## Methyltri(ethylmethylketoxime)silane isomers and oligomers

No relevant data found.

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

No relevant data found.

## Methyl Ethyl Ketoxime

Potential for mobility in soil is high (Koc between 50 and 150). **Partition coefficient (Koc):** 130 Estimated.

#### Results of PBT and vPvB assessment

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## 2-Butanone, O,O',O"-(methylsilylidyne)trioxime

This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

#### Silicon dioxide

This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

#### 3-Aminopropyltriethoxysilane

This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

## Methyltri(ethylmethylketoxime)silane isomers and oligomers

This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

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

This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

## **Methyl Ethyl Ketoxime**

This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

#### Other adverse effects

#### 2-Butanone, O,O',O"-(methylsilylidyne)trioxime

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

## Silicon dioxide

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

#### 3-Aminopropyltriethoxysilane

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

#### Methyltri(ethylmethylketoxime)silane isomers and oligomers

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

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

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

#### Methyl Ethyl Ketoxime

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

## **SECTION 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,

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permitted: Recycler. Reclaimer. Incinerator or other thermal destruction device. For additional information, refer to: Handling & Storage Information, MSDS Section 7 Stability & Reactivity 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.

## **SECTION 14: TRANSPORT INFORMATION**

**ADG** 

Not regulated for transport

## Classification for SEA transport (IMO-IMDG):

Not regulated for transport

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

Consult IMO regulations before transporting ocean bulk

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

Not regulated for transport

Hazchem Code None Allocated

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.

## **SECTION 15: REGULATORY INFORMATION**

#### **Poison Schedule**

Not Scheduled

#### Australia Inventory of Chemical Substances (AICS)

The product contains an intentional component that is subject to a restriction. Production and/or use is limited by the conditions of the restriction.

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Prohibition/Licensing Requirements

: Refer to model WHS Act and Regulations for prohibition, authorisation and restricted use.

Issue Date: 16.09.2019

## **SECTION 16: ANY OTHER RELEVANT INFORMATION**

#### Revision

Identification Number: 4024594 / A142 / Issue Date: 16.09.2019 / Version: 4.0 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)
AU OEL	Australia. Workplace Exposure Standards for Airborne Contaminants.
Dow IHG	Dow Industrial Hygiene Guideline
STEL	Exposure standard - short term exposure limit
TWA	Time weighted average
US WEEL	USA. Workplace Environmental Exposure Levels (WEEL)

#### Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL -Domestic Substances List (Canada); ECx - Concentration associated with x% response; 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; 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; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; 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; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet: TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; 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; WHMIS - Workplace Hazardous Materials Information System

DOW CHEMICAL (AUSTRALIA) PTY LTD 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

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