SAFETY DATA SHEET
DOW CHEMICAL (AUSTRALIA) PTY LTD

Product name: DOWSIL™ 888 Silicone Joint Sealant

Issue Date: 13.10.2023
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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™ 888 Silicone Joint Sealant

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
Serious eye damage/eye irritation - Category 2A
Short-term (acute) aquatic hazard - Category 3
Long-term (chronic) aquatic hazard - Category 3

GHS label elements
Hazard pictograms

Signal word: **WARNING!**

Hazard statements
Causes serious eye irritation.
Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention
Wash skin thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Avoid release to the environment.
Wear eye protection/ 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 eye irritation persists: Get medical advice/ attention.

Disposal
Dispose of contents and/or 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
Limestone	1317-65-3	>= 46.0 - <= 58.0 %
Methylvinyl bis(N-ethylacetamido)silane	87855-59-2	>= 0.5 - <= 2.8 %
Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine	68952-53-4	>= 0.88 - <= 2.2 %
Quartz	14808-60-7	< 0.58 %
N-ethylacetamide	625-50-3	>= 0.08 - <= 0.42 %
Impurities in methylvinylbis(N-	Not available	>= 0.04 - <= 0.21 %

ethylacetamido)silane		
Octamethyl Cyclotetrasiloxane	556-67-2	<= 0.21 %
Zinc phosphate	7779-90-0	<= 0.016 %

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 and keep comfortable for breathing; 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: Rinse mouth with water. No emergency medical treatment necessary.

Most important symptoms and effects, both acute and delayed:
Causes serious eye irritation.

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.

SECTION 5: FIREFIGHTING MEASURES

Hazchem Code
None Allocated

Extinguishing media

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

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

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..

SECTION 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.
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. 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.

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
Limestone	Dow IHG	TWA	1 mg/m3
	AU OEL	TWA	10 mg/m3 , Calcium carbonate
Quartz	ACGIH	TWA Respirable particulate matter	0.025 mg/m3 , Silica
	Further information: lung cancer: Lung cancer; pulm fibrosis: Pulmonary fibrosis; A2: Suspected human carcinogen		
	AU OEL	TWA Respirable dust	0.1 mg/m3
Octamethyl Cyclotetrasiloxane	US WEEL	TWA	10 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.

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. Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl chloride ("PVC" or "vinyl"). When prolonged or frequently repeated contact may occur, a glove with a protection class of 4 or higher (breakthrough time greater than 120 minutes according to AS/NZS 2161.10) is recommended. When only brief contact is expected , a glove with a protection class of 1 or higher (breakthrough time greater than 10 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.

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	grey
Odor	Fishy
Odor Threshold	No data available
pH	Not applicable, substance/mixture is non-soluble (in water)
Melting point/freezing point	
Melting point/range	No data available
Freezing point	No data available
Boiling point, initial boiling point and boiling range	
Boiling point (760 mmHg)	Not applicable
Flash point	**closed cup** 100 °C
Evaporation Rate (Butyl Acetate = 1)	Not applicable
Flammability	
Flammability (solid, gas)	Not classified as a flammability hazard
Flammability (liquids)	No data available
Upper/lower flammability or explosive limits	
Lower explosion limit	No data available
Upper explosion limit	No data available
Vapor Pressure	Not applicable
Relative vapour density	
Relative Vapor Density (air = 1)	No data available

Density and / or relative density	
Relative Density (water = 1)	1.48
Solubility(ies)	
Water solubility	insoluble
Partition coefficient: n-octanol/water (log value)	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Dynamic Viscosity	Not applicable
Kinematic Viscosity	Not applicable
Explosive properties	Not explosive
Oxidizing properties	The substance or mixture is not classified as oxidizing.
Molecular weight	No data available
Particle characteristics	
Particle size	No 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.

Conditions to avoid: None known.

Incompatible materials: Avoid contact with oxidizing materials.

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

SECTION 11: TOXICOLOGICAL INFORMATION

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

Exposure routes
Eye contact, Skin contact, Ingestion.

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

Acute Toxicity Endpoints:
Not classified based on available information.

Acute oral toxicity

Information for the Product:

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:

Limestone
LD50, Rat, > 6,000 mg/kg

Methylvinyl bis(N-ethylacetamido)silane
LD50, Rat, 500 mg/kg Acute toxicity estimate

Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine
Single dose oral LD50 has not been determined.

Quartz
For similar material(s): LD50, Rat, > 5,000 mg/kg

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

Impurities in methylvinylbis(N-ethylacetamido)silane
LD50, 500 mg/kg Acute toxicity estimate

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

Zinc phosphate
LD50, Rat, > 5,000 mg/kg

Acute dermal toxicity

Information for the Product:

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:

Limestone
LD50, Rat, > 2,000 mg/kg No deaths occurred at this concentration.

Methylvinyl bis(N-ethylacetamido)silane
LD50, Rat, > 2,000 mg/kg

Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine
The dermal LD50 has not been determined.

Quartz
The dermal LD50 has not been determined.

N-ethylacetamide
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.

Zinc phosphate
The dermal LD50 has not been determined.

Acute inhalation toxicity

Information for the Product:

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:

Limestone
Maximum attainable concentration. LC50, Rat, 4 Hour, dust/mist, > 3 mg/l No deaths occurred at this concentration.

Methylvinyl bis(N-ethylacetamido)silane
The LC50 has not been determined.

Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine
The LC50 has not been determined.

Quartz
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.

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

Zinc phosphate
LC50, Rat, 4 Hour, dust/mist, 5.4 mg/l

Skin corrosion/irritation

Not classified based on available information.

Information for the Product:

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:

Limestone
Essentially nonirritating to skin.
May cause drying and flaking of the skin.

Methylvinyl bis(N-ethylacetamido)silane
Brief contact may cause slight skin irritation with local redness.

Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine
For similar material(s):
Brief contact may cause skin irritation with local redness.

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

N-ethylacetamide
For similar material(s):
Brief contact may cause slight skin irritation with local redness.

Impurities in methylvinylbis(N-ethylacetamido)silane
For similar material(s):
Brief contact may cause slight skin irritation with local redness.

Octamethyl Cyclotetrasiloxane
Brief contact is essentially nonirritating to skin.

Zinc phosphate
Essentially nonirritating to skin.

Serious eye damage/eye irritation

Causes serious eye irritation.

Information for the Product:

Based on information for component(s):
May cause severe eye irritation.
May cause corneal injury.

Information for components:

Limestone
May cause slight temporary eye irritation.
Dust may irritate eyes.

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.

Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine
For similar material(s):
May cause eye irritation.

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

N-ethylacetamide
For similar material(s):
May cause slight eye irritation.

Impurities in methylvinylbis(N-ethylacetamido)silane
For similar material(s):
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.

Zinc phosphate
Essentially nonirritating to eyes.

Sensitization

For skin sensitization:
Not classified based on available information.

For respiratory sensitization:
Not classified based on available information.

Information for the Product:

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

For respiratory sensitization:
No relevant data found.

Information for components:

Limestone
Did not demonstrate the potential for contact allergy in mice.

For respiratory sensitization:
No relevant data found.

Methylvinyl bis(N-ethylacetamido)silane
Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:
No relevant data found.

Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine
For skin sensitization:
No relevant data found.

For respiratory sensitization:
No relevant data found.

Quartz
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.

Impurities in methylvinylbis(N-ethylacetamido)silane
For similar material(s):
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.

Zinc phosphate
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)

Not classified based on available information.

Information for the Product:

Product test data not available.

Information for components:

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

Methylvinyl bis(N-ethylacetamido)silane
Available data are inadequate to determine single exposure specific target organ toxicity.

Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine
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.

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

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.

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

Aspiration Hazard

Not classified based on available information.

Information for the Product:

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

Information for components:

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

Methylvinyl bis(N-ethylacetamido)silane
Based on available information, aspiration hazard could not be determined.

Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine

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

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

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

Impurities in methylvinylbis(N-ethylacetamido)silane
Based on available information, aspiration hazard could not be determined.

Octamethyl Cyclotetrasiloxane
Material is not classified as an aspiration hazard based on insufficient data, however materials with low viscosity may be aspirated into the lungs during ingestion or vomiting.

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

Chronic toxicity (represents longer term exposures with repeated dose resulting in chronic/delayed effects - no immediate effects known unless otherwise noted)

Specific Target Organ Systemic Toxicity (Repeated Exposure)

Not classified based on available information.

Information for the Product:

Product test data not available.

Information for components:

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

Methylvinyl bis(N-ethylacetamido)silane
No relevant data found.

Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine
No relevant data found.

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.

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

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.

Zinc phosphate
No relevant data found.

Carcinogenicity

Not classified based on available information.

Information for the Product:

Product test data not available.

Information for components:

Limestone
No relevant data found.

Methylvinyl bis(N-ethylacetamido)silane
No relevant data found.

Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine
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.

N-ethylacetamide
No relevant data found.

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.

Zinc phosphate

No relevant data found.

Teratogenicity

Not classified based on available information.

Information for the Product:

Product test data not available.

Information for components:

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

Methylvinyl bis(N-ethylacetamido)silane
No relevant data found.

Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine
No relevant data found.

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

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

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.

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

Reproductive toxicity

Not classified based on available information.

Information for the Product:

Product test data not available.

Information for components:

Limestone
In animal studies, did not interfere with fertility. In animal studies, did not interfere with reproduction.

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.

Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine
No relevant data found.

Quartz
No relevant data found.

N-ethylacetamide
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.

Zinc phosphate
For similar material(s): In animal studies, did not interfere with reproduction.

Mutagenicity

Not classified based on available information.

Information for the Product:

Product test data not available.

Information for components:

Limestone
In vitro genetic toxicity studies were negative.

Methylvinyl bis(N-ethylacetamido)silane
In vitro genetic toxicity studies were negative.

Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine
No relevant data found.

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

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

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.

Zinc phosphate
For similar material(s): In vitro mutagenicity studies were negative.

SECTION 12: ECOLOGICAL INFORMATION

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

Ecotoxicity

Limestone

Acute toxicity to fish
Material is practically non-toxic to fish on an acute basis (LC50 > 100 mg/L).
LC50, Gambusia affinis (Mosquito fish), static test, 96 Hour, > 56,000 mg/l

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

Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine

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

Quartz

Acute toxicity to fish
Based on information for a similar material:
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 similar material(s):
LC50, Danio rerio (zebra fish), 96 Hour, 5,000 - 10,000 mg/l

Acute toxicity to aquatic invertebrates
For similar material(s):
EC50, Daphnia magna (Water flea), 48 Hour, 731 mg/l

For similar material(s):
EC50, Daphnia magna (Water flea), 24 Hour, > 1,000 mg/l

Acute toxicity to algae/aquatic plants
For similar material(s):
EC50, Pseudokirchneriella subcapitata (algae), 72 Hour, Biomass, 440 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

Octamethyl Cyclotetrasiloxane

Acute toxicity to fish
Based on testing of comparable products: The estimated maximum aqueous concentration of Octamethyl Cyclotetrasiloxane (D4) from migration to water from the product as supplied is below the D4 established no-effect threshold (< 0.0079 mg/L) for aquatic organisms.

Chronic toxicity to aquatic invertebrates
Based on testing for product(s) in this family of materials:
Not classified due to data which are conclusive although insufficient for classification.

Zinc phosphate

Acute toxicity to fish
Material is very highly toxic to aquatic organisms on an acute basis (LC50/EC50 <0.1 mg/L in the most sensitive species).
LC50, Rainbow trout (Oncorhynchus mykiss), 96 Hour, 0.09 mg/l

Acute toxicity to aquatic invertebrates
EC50, Daphnia magna (Water flea), static test, 48 Hour, > 1.08 mg/l, OECD Test Guideline 202

Acute toxicity to algae/aquatic plants
Based on data from similar materials
NOEC, Pseudokirchneriella subcapitata (green algae), 72 Hour, 24 µg/l, OECD Test Guideline 201

Chronic toxicity to fish
Based on data from similar materials
NOEC, Oncorhynchus mykiss (rainbow trout), 30 d, 39 µg/l

Chronic toxicity to aquatic invertebrates
Based on data from similar materials
NOEC, Daphnia magna (Water flea), 21 d, 95 µg/l

Persistence and degradability

Limestone
Biodegradability: Biodegradation is not applicable.

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

Quartz
Biodegradability: Biodegradation is not applicable.

N-ethylacetamide
Biodegradability: Material has inherent, ultimate biodegradability according to OECD test (s) guidelines (reaches > 60 or 70% biodegradation in OECD test(s).
Based on data from similar materials
Biodegradation: 100 %
Exposure time: 6 d

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, 3.9 d, pH 7, Half-life Temperature 25 °C, OECD Test Guideline 111

Zinc phosphate
Biodegradability: Biodegradability is not applicable to inorganic substances.

Bioaccumulative potential

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

Methylvinyl bis(N-ethylacetamido)silane

Bioaccumulation: No relevant data found.

Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine

Bioaccumulation: No relevant data found.

Quartz

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

N-ethylacetamide

Bioaccumulation: No relevant data found.

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

Zinc phosphate

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

Mobility in Soil

Limestone

No relevant data found.

Methylvinyl bis(N-ethylacetamido)silane

No relevant data found.

Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine

No relevant data found.

Quartz

No relevant data found.

N-ethylacetamide

No relevant data found.

Octamethyl Cyclotetrasiloxane

Partition coefficient (Koc): 16596 OECD Test Guideline 106

Zinc phosphate

No relevant data found.

Results of PBT and vPvB assessment

Limestone

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).

Methylvinyl bis(N-ethylacetamido)silane

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

Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine

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

Quartz

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

N-ethylacetamide

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

Impurities in methylvinylbis(N-ethylacetamido)silane

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

Octamethyl Cyclotetrasiloxane

Octamethylcyclotetrasiloxane (D4) meets the current criteria for PBT and vPvB under REACh Annex XIII or other regionally specific criteria. However, D4 does not behave similarly to known PBT/vPvB substances. The weight of scientific evidence from field studies shows that D4 is not biomagnifying in aquatic and terrestrial food webs. D4 in air will degrade by reaction with naturally occurring hydroxyl radicals in the atmosphere. Any D4 in air that does not degrade by reaction with hydroxyl radicals is not expected to deposit from the air to water, to land, or to living organisms.

Zinc phosphate

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

Other adverse effects

Limestone

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

Methylvinyl bis(N-ethylacetamido)silane

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

Dimethyl, methylhydrogen siloxane, dehydrogenated, reaction with hydroxydiethylamine

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

Quartz

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

N-ethylacetamide

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

Impurities in methylvinylbis(N-ethylacetamido)silane

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

Octamethyl Cyclotetrasiloxane

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

Zinc phosphate

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 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 SDS SECTION 1: Identified Uses. 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 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

Australian Inventory of Industrial Chemicals (AIIC)
All substances contained in this product are listed on the Australian Inventory of Industrial Chemicals, or are not required to be listed.

Prohibition/Licensing Requirements : There is no applicable prohibition, authorisation and restricted use requirements, including for carcinogens referred to in Schedule 10 of the model WHS Act and Regulations.

SECTION 16: ANY OTHER RELEVANT INFORMATION

Revision
Identification Number: 4104518 / A142 / Issue Date: 13.10.2023 / Version: 10.0
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
TWA	Time weighted average
US WEEL	USA. Workplace Environmental Exposure Levels (WEEL)

Full text of other abbreviations
AIIC - Australian Inventory of Industrial Chemicals; 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; TECI - Thailand Existing Chemicals 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; WHMIS - Workplace Hazardous Materials Information System

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