



SAFETY DATA SHEET

DOW CHEMICAL (MALAYSIA) SDN. BHD.

Product name: DOWSIL™ 795 Silicone Building Sealant Gray

Issue Date: 20.05.2021

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DOW CHEMICAL (MALAYSIA) SDN. BHD. 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 OF THE HAZARDOUS CHEMICAL AND OF THE SUPPLIER

Product name: DOWSIL™ 795 Silicone Building Sealant Gray

Recommended use of the chemical and restrictions on use

Identified uses: Adhesive, binding agents

COMPANY IDENTIFICATION

DOW CHEMICAL (MALAYSIA) SDN. BHD.
LEVEL 6, CP TOWER, JALAN 16/11,
PUSAT DAGANG SECTION 16,
46350 PETALING JAYA
SELANGOR DARUL EHSAN
MALAYSIA

Customer Information Number:

603-7965-5200
SDSQuestion@dow.com

EMERGENCY TELEPHONE NUMBER

24-Hour Emergency Contact: 1-800-80-1255

Local Emergency Contact: 1800-80-1255

2. HAZARDS IDENTIFICATION

GHS Classification

This product is not hazardous per the Globally Harmonized System of Classification and Labelling (GHS).

GHS label elements

Precautionary statements

Prevention

Use only outdoors or in a well-ventilated area.

Other hazards

No data available

3. COMPOSITION AND INFORMATION OF THE INGREDIENTS OF THE HAZARDOUS CHEMICAL

This product is a mixture.

Component	CASRN	Concentration
Diisopropoxydi(ethoxyacetoacetyl titanate)	27858-32-8	>= 0.5 - <= 1.1 %
Methyltrimethoxysilane	1185-55-3	>= 0.14 - <= 0.3 %
N-(3-(Trimethoxysilyl) propyl)-1,2-ethanediamine	1760-24-3	>= 0.05 - <= 0.14 %

4. FIRST AID MEASURES

Description of first aid measures

General advice:

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

Inhalation: Move person to fresh air and keep comfortable for breathing; consult a physician.

Skin contact: Remove material from skin immediately by washing with soap and plenty of water. Remove contaminated clothing and shoes while washing. Seek medical attention if irritation or rash occurs. Wash clothing before reuse. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands.

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

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

Most important symptoms and effects, both acute and delayed:

Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed

Notes to physician: 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 monoxide, carbon dioxide and unburned hydrocarbons (smoke).. Metal oxides. Carbon oxides. Silicon oxides.

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

Advice for firefighters

Fire Fighting Procedures: Use water spray to cool unopened containers.. Evacuate area.. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations..

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Remove undamaged containers from fire area if it is safe to do so.

Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.. Use personal protective equipment..

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Follow safe handling advice and personal protective equipment recommendations.

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

Methods and materials for containment and cleaning up: Wipe up or scrape up and contain for salvage or disposal. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container.

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

7. HANDLING AND STORAGE

Precautions for safe handling: Take care to prevent spills, waste and minimize release to the environment. Handle in accordance with good industrial hygiene and safety practice. CONTAINERS MAY BE HAZARDOUS WHEN EMPTY. Since emptied containers retain product residue follow all (M)SDS and label warnings even after container is emptied.

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

Conditions for safe storage: Keep in properly labelled containers. Store in accordance with the particular national regulations.

Do not store with the following product types: Strong oxidizing agents.

Unsuitable materials for containers: None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

If exposure limits exist, they are listed below. If no exposure limits are displayed, then no values are applicable.

Component	Regulation	Type of listing	Value
Methyltrimethoxysilane	Dow IHG	TWA	7.5 ppm
	Further information: Skin Sensitizer		
N-(3-(Trimethoxysilyl)propyl)-1,2-ethanediamine	Dow IHG		See Further information
	Further information: Skin Sensitizer		
Isopropanol	ACGIH	TWA	200 ppm
	Further information: A4: Not classifiable as a human carcinogen		
	ACGIH	STEL	400 ppm
	Further information: A4: Not classifiable as a human carcinogen		
	MY PEL	TWA	983 mg/m3 400 ppm

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

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
Isopropanol	67-63-0	Acetone	Urine	End of shift at end of workweek	40 mg/l	ACGIH BEI

Exposure controls

Engineering controls: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

Individual protection measures

Eye/face protection: Use safety glasses (with side shields).

Skin protection

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

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

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state	paste
Color	grey
Odor	slight
Odor Threshold	No data available
pH	Not applicable
Melting point/range	No data available
Freezing point	No data available
Boiling point (760 mmHg)	Not applicable
Flash point	Seta closed cup 91 °C
Evaporation Rate (Butyl Acetate = 1)	Not applicable
Flammability (solid, gas)	Not classified as a flammability hazard
Lower explosion limit	No data available
Upper explosion limit	No data available
Vapor Pressure	Not applicable
Relative Vapor Density (air = 1)	No data available
Relative Density (water = 1)	1.52
Water solubility	No data available
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available

Decomposition temperature	No data available
Dynamic Viscosity	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 size	No data available

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

10. STABILITY AND REACTIVITY

Reactivity: Not classified as a reactivity hazard.

Chemical stability: Stable under normal conditions.

Possibility of hazardous reactions: Can react with strong oxidizing agents. Vapours may form explosive mixture with air.

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. Benzene. Isopropanol.

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

Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

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

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

Information for components:

Diisopropoxydi(ethoxyacetoacetyl)titanate

LD50, Rat, male, 23,020 mg/kg OECD 401 or equivalent

Methyltrimethoxysilane

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

This substance may hydrolyze to release Methanol. Methanol is highly toxic to humans and may cause central nervous system effects, visual disturbances up to blindness, metabolic acidosis, and degenerative damage to other organs including liver, kidney, and heart.

N-(3-(Trimethoxysilyl) propyl)-1,2-ethanediamine

LD50, Rat, male and female, 2,295 mg/kg OPPTS 870.1100

This substance may hydrolyze to release Methanol. Methanol is highly toxic to humans and may cause central nervous system effects, visual disturbances up to blindness, metabolic acidosis, and degenerative damage to other organs including liver, kidney, and heart.

Acute dermal toxicity

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

As product: The dermal LD50 has not been determined.

Based on information for component(s):

LD50, > 2,000 mg/kg Estimated.

Information for components:

Diisopropoxydi(ethoxyacetoacetyl)titanate

For similar material(s): LD50, Rabbit, 12,870 mg/kg

Methyltrimethoxysilane

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

This substance may hydrolyze to release Methanol. Effects of methanol are the same as observed via oral and inhalation exposure and include central nervous system (CNS) depression, visual impairment up to blindness, metabolic acidosis, with effects on organ systems such as liver, kidneys and heart, even death.

N-(3-(Trimethoxysilyl) propyl)-1,2-ethanediamine

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

This substance may hydrolyze to release Methanol. Effects of methanol are the same as observed via oral and inhalation exposure and include central nervous system (CNS) depression, visual impairment up to blindness, metabolic acidosis, with effects on organ systems such as liver, kidneys and heart, even death.

Acute inhalation toxicity

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

As product: The LC50 has not been determined.

Information for components:**Diisopropoxydi(ethoxyacetoacetyl)titanate**

For similar material(s): LC50, Rat, male and female, 4 Hour, vapour, > 198.65 mg/l
No deaths occurred at this concentration.

Methyltrimethoxysilane

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

This substance may hydrolyze to release Methanol. Inhalation of methanol may cause effects ranging from headache, narcosis and visual impairment to metabolic acidosis, blindness, and even death.

N-(3-(Trimethoxysilyl) propyl)-1,2-ethanediamine

LC50, Rat, 4 Hour, dust/mist, 1.49 - 2.44 mg/l OECD Test Guideline 403

This substance may hydrolyze to release Methanol. Inhalation of methanol may cause effects ranging from headache, narcosis and visual impairment to metabolic acidosis, blindness, and even death.

Skin corrosion/irritation

Based on information for component(s):

Brief contact is essentially nonirritating to skin.

May cause drying and flaking of the skin.

Information for components:**Diisopropoxydi(ethoxyacetoacetyl)titanate**

Brief contact is essentially nonirritating to skin.

Methyltrimethoxysilane

Brief contact may cause slight skin irritation with local redness.

N-(3-(Trimethoxysilyl) propyl)-1,2-ethanediamine

Brief contact may cause moderate skin irritation with local redness.

Serious eye damage/eye irritation

Based on information for component(s):

May cause slight temporary eye irritation.

May cause mild eye discomfort.

Information for components:**Diisopropoxydi(ethoxyacetoacetyl)titanate**

May cause moderate eye irritation.

May cause corneal injury.

Methyltrimethoxysilane

May cause slight temporary eye irritation.

Corneal injury is unlikely.

N-(3-(Trimethoxysilyl) propyl)-1,2-ethanediamine

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

Sensitization

For skin sensitization:

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

For respiratory sensitization:

No relevant data found.

Information for components:

Diisopropoxydi(ethoxyacetoacetyl)titanate

For similar material(s):

Did not demonstrate the potential for contact allergy in mice.

For respiratory sensitization:

No relevant data found.

Methyltrimethoxysilane

For skin sensitization:

Has caused allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:

No relevant data found.

N-(3-(Trimethoxysilyl) propyl)-1,2-ethanediamine

Has caused allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:

No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)

Contains component(s) which are classified as specific target organ toxicant, single exposure, category 3.

Information for components:

Diisopropoxydi(ethoxyacetoacetyl)titanate

May cause drowsiness or dizziness.

Route of Exposure: Inhalation

Target Organs: Central nervous system

Methyltrimethoxysilane

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

N-(3-(Trimethoxysilyl) propyl)-1,2-ethanediamine

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

Aspiration Hazard

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

Information for components:

Diisopropoxydi(ethoxyacetoacetyl)titanate

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

Methyltrimethoxysilane

May be harmful if swallowed and enters airways.

N-(3-(Trimethoxysilyl) propyl)-1,2-ethanediamine

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

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:

Diisopropoxydi(ethoxyacetoacetyl)titanate

For similar material(s):

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

Methyltrimethoxysilane

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

N-(3-(Trimethoxysilyl) propyl)-1,2-ethanediamine

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

Carcinogenicity

Contains a component(s) that is/are not expected to be bioavailable due to the physical state of the material under normal handling and processing conditions.

Information for components:

Diisopropoxydi(ethoxyacetoacetyl)titanate

No relevant data found.

Methyltrimethoxysilane

No relevant data found.

N-(3-(Trimethoxysilyl) propyl)-1,2-ethanediamine

No relevant data found.

Teratogenicity

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

Information for components:

Diisopropoxydi(ethoxyacetoacetyl)titanate

For similar material(s): Did not cause birth defects or other effects in the fetus even at doses which caused toxic effects in the mother.

Methyltrimethoxysilane

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

N-(3-(Trimethoxysilyl) propyl)-1,2-ethanediamine

Did not cause birth defects in laboratory animals.

Reproductive toxicity

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

Information for components:

Diisopropoxydi(ethoxyacetoacetyl)titanate

No relevant data found.

Methyltrimethoxysilane

In animal studies, did not interfere with reproduction.

N-(3-(Trimethoxysilyl) propyl)-1,2-ethanediamine

In animal studies, did not interfere with reproduction.

Mutagenicity

In vitro genetic toxicity studies were negative for component(s) tested. Genetic toxicity studies in animals were negative for component(s) tested.

Information for components:

Diisopropoxydi(ethoxyacetoacetyl)titanate

In vitro genetic toxicity studies were negative.

Methyltrimethoxysilane

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

N-(3-(Trimethoxysilyl) propyl)-1,2-ethanediamine

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.

Ecotoxicity

Diisopropoxydi(ethoxyacetoacetyl)titanate

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, Rasbora heteromorpha (Harlequin fish), static test, 96 Hour, 4,200 mg/l

Acute toxicity to aquatic invertebrates

LC50, Daphnia magna (Water flea), static test, 48 Hour, > 100 mg/l, OECD Test Guideline 202 or Equivalent

Acute toxicity to algae/aquatic plants

ErC50, *Pseudokirchneriella subcapitata* (green algae), static test, 72 Hour, Growth rate inhibition, > 100 mg/l, OECD Test Guideline 201 or Equivalent

NOEC, *Pseudokirchneriella subcapitata* (green algae), static test, 72 Hour, Growth rate inhibition, 100 mg/l, OECD Test Guideline 201 or Equivalent

Methyltrimethoxysilane**Acute toxicity to fish**

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

LC50, *Oncorhynchus mykiss* (rainbow trout), 96 Hour, > 110 mg/l, OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates

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

Acute toxicity to algae/aquatic plants

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

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

Toxicity to bacteria

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

Chronic toxicity to aquatic invertebrates

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

N-(3-(Trimethoxysilyl) propyl)-1,2-ethanediamine**Acute toxicity to fish**

Material is toxic to aquatic organisms (LC50/EC50/IC50 between 1 and 10 mg/L in the most sensitive species).

For the hydrolysis product(s)

LC50, zebra fish (*Brachydanio rerio*), 96 Hour, 597 mg/l

Acute toxicity to aquatic invertebrates

For the hydrolysis product(s)

EC50, *Daphnia magna* (Water flea), 48 Hour, 81 mg/l

Acute toxicity to algae/aquatic plants

For the hydrolysis product(s)

ErC50, *Pseudokirchneriella subcapitata* (green algae), 72 Hour, Growth rate inhibition, 8.8 mg/l

For the hydrolysis product(s)

NOEC, *Pseudokirchneriella subcapitata* (green algae), 72 Hour, Growth rate inhibition, 3.1 mg/l

Toxicity to bacteria

For the hydrolysis product(s)

EC50, *Pseudomonas putida*, 16 Hour, Growth inhibition, 67 mg/l

Chronic toxicity to aquatic invertebrates

For the hydrolysis product(s)

NOEC, Daphnia magna (Water flea), semi-static test, 21 d, number of offspring, > 1 mg/l

Toxicity to Above Ground Organisms

Material is moderately toxic to birds on an acute basis (LD50 between 51 and 500 mg/kg).

Toxicity to soil-dwelling organisms

NOEC, Eisenia fetida (earthworms), 14 d, >= 1,000 mg/kg

Persistence and degradability**Diisopropoxydi(ethoxyacetoacetyl)titanate**

Biodegradability: For similar material(s): Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

10-day Window: Pass

Biodegradation: 66 %

Exposure time: 28 d

Method: OECD Test Guideline 301D

Methyltrimethoxysilane

Biodegradability: Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

Biodegradation: 54 %

Exposure time: 28 d

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

N-(3-(Trimethoxysilyl) propyl)-1,2-ethanediamine

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: 39 %

Exposure time: 28 d

Method: OECD Test Guideline 301A or Equivalent

Theoretical Oxygen Demand: 2.39 mg/mg Estimated.

Chemical Oxygen Demand: 1.76 mg/mg Estimated.

Biological oxygen demand (BOD)

Incubation Time	BOD
5 d	23 %
10 d	30 %
20 d	29 %

Stability in Water (1/2-life)

Hydrolysis, half-life, 0.025 Hour, pH 7

Photodegradation

Test Type: Half-life (indirect photolysis)

Sensitization: OH radicals
Atmospheric half-life: 0.088 d
Method: Estimated.

Bioaccumulative potential

Diisopropoxydi(ethoxyacetoacetyl)titanate

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

Partition coefficient: n-octanol/water(log Pow): 0.05

Bioconcentration factor (BCF): 3 Fish Estimated.

Methyltrimethoxysilane

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

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

N-(3-(Trimethoxysilyl) propyl)-1,2-ethanediamine

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

Partition coefficient: n-octanol/water(log Pow): < 3 estimated

Mobility in Soil

Diisopropoxydi(ethoxyacetoacetyl)titanate

For similar material(s):

Partition coefficient (Koc): 1.53 Estimated.

Methyltrimethoxysilane

No relevant data found.

N-(3-(Trimethoxysilyl) propyl)-1,2-ethanediamine

Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.

Partition coefficient (Koc): > 5000 Estimated.

Results of PBT and vPvB assessment

Diisopropoxydi(ethoxyacetoacetyl)titanate

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).

Methyltrimethoxysilane

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).

N-(3-(Trimethoxysilyl) propyl)-1,2-ethanediamine

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

Diisopropoxydi(ethoxyacetoacetyl)titanate

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

Methyltrimethoxysilane

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

N-(3-(Trimethoxysilyl) propyl)-1,2-ethanediamine

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

13. DISPOSAL INFORMATION

Disposal methods: DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Incinerator or other thermal destruction device. For additional information, refer to: Handling & Storage Information, MSDS Section 7 Stability & Reactivity Information, MSDS Section 10 Regulatory Information, MSDS Section 15

Treatment and disposal methods of used packaging: Empty containers should be recycled or otherwise disposed of by an approved waste management facility. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. Do not re-use containers for any purpose.

14. TRANSPORTATION INFORMATION

Classification for ROAD and Rail transport:

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

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

Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013.

Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations 2000.

16. OTHER INFORMATION

Revision

Identification Number: 1914642 / A154 / Issue Date: 20.05.2021 / Version: 5.0

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Legend

ACGIH	USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI	ACGIH - Biological Exposure Indices (BEI)
Dow IHG	Dow Industrial Hygiene Guideline
MY PEL	Malaysia. Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations 2000.
STEL	Short-term exposure limit
TWA	Time weighted average

Full text of other abbreviations

AIIIC - 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; 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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