



VT-210 High Performance Sealant

Safety Data Sheet

according to the United Nations GHS (Rev. 10, 2023)

Issue date: 8/18/2021 Revision date: 5/29/2024 Supersedes: 3/20/2024 Version: 1.4

SECTION 1: Identification

1.1. GHS Product identifier

Product form : Mixture
Product name : VT-210 High Performance Sealant
Product group : Trade product

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use : Sealants

1.4. Supplier's details

Manufacturer

Vital Technical Sdn. Bhd.
No.93, Jalan Industri 3/3 Rawang Integrated Industrial Park,
48000 Rawang, Selangor, Malaysia.
T +603 60942088 - F +603 60992930

1.5. Emergency phone number

No additional information available

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification according to the United Nations GHS

Serious eye damage/eye irritation, Category 2	H319	Calculation method
Skin sensitisation, Category 1	H317	Calculation method
Hazardous to the aquatic environment – Acute Hazard Not classified		Calculation method
Hazardous to the aquatic environment – Chronic Hazard, Category 3	H412	Calculation method

Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects : May cause an allergic skin reaction, Causes serious eye irritation, Harmful to aquatic life with long lasting effects.

2.2. GHS Label elements, including precautionary statements

Labelling according to the United Nations GHS

Hazard pictograms (GHS UN) :



Signal word (GHS UN) : Warning
Hazardous ingredients : N-(3-(TRIMETHOXSILYL)PROPYL)ETHYLENEDIAMINE; BUTAN-2-ONE O,O',O"-
(VINYL)SILYLIDYNE)TRIOXIME; BUTAN-2-ONE O,O',O"-
(METHYLSILYLIDYNE)TRIOXIME
Hazard statements (GHS UN) : H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H412 - Harmful to aquatic life with long lasting effects
Precautionary statements (GHS UN) : P261 - Avoid breathing dust, fume, gas, mist, spray, vapours.
P264+P265 - Wash hands, forearms and face thoroughly after handling. Do not touch eyes.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 - IF ON SKIN: Wash with plenty of water.

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2.3. Other hazards which do not result in classification

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to the United Nations GHS
BUTAN-2-ONE O,O',O"- (METHYLSILYLIDYNE)TRIOXIME	CAS-No.: 22984-54-9	1 – 10	Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT RE 2, H373
BUTAN-2-ONE O,O',O"- (VINYLIDYNE)TRIOXIME	CAS-No.: 2224-33-1	1 – 10	Eye Dam. 1, H318 Skin Sens. 1, H317 STOT RE 2, H373
N-(3- (TRIMETHOXYSILYL)PROPYL)ETHYLENEDIAMINE	CAS-No.: 1760-24-3	0.1 – 1	Eye Dam. 1, H318 Skin Sens. 1, H317 STOT SE 3, H335
octamethylcyclotetrasiloxane; [D4]	CAS-No.: 556-67-2	0.1 – 1	Repr. 2, H361 Aquatic Chronic 1, H410 (M=10)

Full text of H-statements: see section 16

SECTION 4: First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: 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.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after skin contact	: May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Eye irritation.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam.
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5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire	: Toxic fumes may be released.
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5.3. Special protective actions for fire-fighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and materials for containment and cleaning up

Methods for cleaning up : Mechanically recover the product.
Other information : Dispose of materials or solid residues at an authorized site.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray. Wear personal protective equipment.
Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Hand protection : Protective gloves
Eye protection : Safety glasses
Skin and body protection : Wear suitable protective clothing
Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s)



8.4. Exposure limit values for the other components

No additional information available

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SECTION 9: Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Solid
Appearance	: Paste
Colour	: Various.
Odour	: Characteristic odour.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not applicable
Boiling point	: Not available
Flammability	: Non flammable.
Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: ≈ 450 °C
Decomposition temperature	: Not available
pH	: No data available
pH solution	: Not available
Viscosity, kinematic (calculated value) (40 °C)	: Not applicable
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: ≈ 1.02
Relative vapour density at 20°C	: No data available
Solubility	: insoluble in water.
Particle size	: Not available

9.2. Data relevant with regard to physical hazard classes (supplemental)

Explosive limits	: Not applicable
VOC content	: ≈ 43.68 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

N-(3-(TRIMETHOXYSILYL)PROPYL)ETHYLENEDIAMINE (1760-24-3)	
LD50 oral rat	2295 mg/kg
LD50 dermal	2000 mg/kg

BUTAN-2-ONE O,O',O''-(VINYLILIDYNE)TRIOXIME (2224-33-1)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	≈ 2009 mg/kg

BUTAN-2-ONE O,O',O''-(METHYLSILYLIDYNE)TRIOXIME (22984-54-9)	
LD50 oral rat	≈ 2453 mg/kg
LD50 dermal rat	> 2000 mg/kg

Skin corrosion/irritation : Not classified
pH: No data available
Serious eye damage/irritation : Causes serious eye irritation.
pH: No data available
Respiratory or skin sensitisation : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified

N-(3-(TRIMETHOXYSILYL)PROPYL)ETHYLENEDIAMINE (1760-24-3)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified

BUTAN-2-ONE O,O',O''-(VINYLILIDYNE)TRIOXIME (2224-33-1)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

BUTAN-2-ONE O,O',O''-(METHYLSILYLIDYNE)TRIOXIME (22984-54-9)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

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Viscosity, kinematic	Not applicable

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Harmful to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute) : Not classified.
Classification procedure (Hazardous to the aquatic environment, short-term (acute)) : Calculation method
Hazardous to the aquatic environment, long-term (chronic) : Harmful to aquatic life with long lasting effects.
Classification procedure (Hazardous to the aquatic environment, long-term (chronic)) : Calculation method

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BUTAN-2-ONE O,O',O''-(VINYL-SILYLIDYNE)TRIOXIME (2224-33-1)

LC50 fish 1 1011 mg/l

EC50 other aquatic organisms 1 201 mg/l

BUTAN-2-ONE O,O',O''-(METHYL-SILYLIDYNE)TRIOXIME (22984-54-9)

LC50 fish 1 972.34 mg/l

EC50 other aquatic organisms 1 231.84 mg/l

12.2. Persistence and degradability

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Persistence and degradability Not rapidly degradable

N-(3-(TRIMETHOXY-SILYL)PROPYL)ETHYLENEDIAMINE (1760-24-3)

Persistence and degradability Not rapidly degradable

BUTAN-2-ONE O,O',O''-(VINYL-SILYLIDYNE)TRIOXIME (2224-33-1)

Persistence and degradability Not rapidly degradable

BUTAN-2-ONE O,O',O''-(METHYL-SILYLIDYNE)TRIOXIME (22984-54-9)

Persistence and degradability Not rapidly degradable

octamethylcyclotetrasiloxane; [D4] (556-67-2)

Persistence and degradability Not rapidly degradable

12.3. Bioaccumulative potential

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Bioaccumulative potential No additional information available

12.4. Mobility in soil

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Mobility in soil No additional information available

12.5. Other adverse effects

Ozone : Not classified

Other adverse effects : No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with UN RTDG / IMDG / IATA

UN RTDG	IMDG	IATA
14.1. UN number		
Not applicable	Not regulated	Not regulated
14.2. UN Proper Shipping Name		
Not applicable	Not regulated	Not regulated

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UN RTDG	IMDG	IATA
14.3. Transport hazard class(es)		
Not applicable	Not regulated	Not regulated
14.4. Packing group		
Not applicable	Not regulated	Not regulated
14.5. Environmental hazards		
Not applicable	Not regulated	Not regulated
No supplementary information available		

14.6. Special precautions for user

UN RTDG

Not applicable

IMDG

Not regulated

IATA

Not regulated

14.7. Transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations specific for the product in question

No additional information available

SECTION 16: Other information

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Abbreviations and acronyms : CAS-No. - Chemical Abstract Service number
ATE - Acute Toxicity Estimate
EC50 - Median effective concentration
EC-No. - European Community number
IATA - International Air Transport Association
IMDG - International Maritime Dangerous Goods
LC50 - Median lethal concentration
LD50 - Median lethal dose
LOAEL - Lowest Observed Adverse Effect Level
N.O.S. - Not Otherwise Specified
NOAEC - No-Observed Adverse Effect Concentration
NOAEL - No-Observed Adverse Effect Level
NOEC - No-Observed Effect Concentration
OEL - Occupational Exposure Limit
SDS - Safety Data Sheet

Full text of H-statements:	
Aquatic Acute Not classified	Hazardous to the aquatic environment – Acute Hazard Not classified
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3

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Full text of H-statements:	
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Repr. 2	Reproductive toxicity, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H361	Suspected of damaging fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure
H410	Very toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

Safety Data Sheet (SDS), UN

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.