# VT-210 High Performance Sealant

Safety Data Sheet

according to the United Nations GHS (Rev. 9, 2021)
Issue date: 8/18/2021 Revision date: 4/20/2022 Supersedes: 2/17/2022 Version: 1.2

## 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

Use of the substance/mixture : Sealants
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**

| | | |
|---|---|---|
| Skin sensitisation, Category 1 | H317 | 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,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-(TRIMETHOXYSILYL)PROPYL)ETHYLENEDIAMINE, BUTAN-2-ONE O,O',O''-(VINYLSILYLIDYNE)TRIOXIME, BUTAN-2-ONE O,O',O''-(METHYLSILYLIDYNE)TRIOXIME
Hazard statements (GHS UN) : H317 - May cause an allergic skin reaction
H412 - Harmful to aquatic life with long lasting effects
Precautionary statements (GHS UN) : P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
P103 - Read carefully and follow all instructions.
P261 - Avoid breathing dust, fume, gas, mist, spray, vapours.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P273 - Avoid release to the environment.

### 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<br>Skin Sens. 1, H317<br>STOT RE 2, H373 |
| BUTAN-2-ONE O,O',O"-(VINYLSILYLIDYNE)TRIOXIME | CAS-No.: 2224-33-1 | 0.1 – 1 | Eye Dam. 1, H318<br>Skin Sens. 1, H317<br>STOT RE 2, H373 |
| N-(3-(TRIMETHOXYSILYL)PROPYL)ETHYLENEDIAMINE | CAS-No.: 1760-24-3 | 0.1 – 1 | Eye Dam. 1, H318<br>Skin Sens. 1, H317<br>STOT SE 3, H335 |

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 eyes with water as a precaution.

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.

### 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.

### 5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 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.

## 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

## 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.

## 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"-(VINYLSILYLIDYNE)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 : Not classified
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"-(VINYLSILYLIDYNE)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

| VT-210 High Performance Sealant | |
|---|---|
| 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
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

| BUTAN-2-ONE O,O',O"-(VINYLSILYLIDYNE)TRIOXIME (2224-33-1) | |
|---|---|
| LC50 fish 1 | 1011 mg/l |

| BUTAN-2-ONE O,O',O''-(VINYLSILYLIDYNE)TRIOXIME (2224-33-1) | |
|---|---|
| EC50 other aquatic organisms 1 | 201 mg/l |

| BUTAN-2-ONE O,O',O''-(METHYLSILYLIDYNE)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

| VT-210 High Performance Sealant | |
|---|---|
| Persistence and degradability | No additional information available |

### 12.3. Bioaccumulative potential

| VT-210 High Performance Sealant | |
|---|---|
| Bioaccumulative potential | No additional information available |

### 12.4. Mobility in soil

| VT-210 High Performance Sealant | |
|---|---|
| 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 regulated for transport | | |
| **14.2. UN Proper Shipping Name** | | |
| Not applicable | Not applicable | Not applicable |
| **14.3. Transport hazard class(es)** | | |
| Not applicable | Not applicable | Not applicable |
| Not applicable | Not applicable | Not applicable |
| **14.4. Packing group** | | |
| Not applicable | Not applicable | Not applicable |
| **14.5. Environmental hazards** | | |
| Dangerous for the environment : No | Dangerous for the environment : No<br>Marine pollutant : No | Dangerous for the environment : No |

| UN RTDG | IMDG | IATA |
|---|---|---|
| No supplementary information available | | |

### 14.6. Special precautions for user

**UN RTDG**
No data available

**IMDG**
No data available

**IATA**
No data available

### 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

Issue date : 18/08/2021
Revision date : 20/04/2022
Supersedes : 17/02/2022

| Full text of H-statements: | |
|---|---|
| H225 | Highly flammable liquid and vapour |
| H301 | Toxic if swallowed |
| H311 | Toxic in contact with skin |
| H312 | Harmful in contact with skin |
| H315 | Causes skin irritation |
| H317 | May cause an allergic skin reaction |
| H318 | Causes serious eye damage |
| H319 | Causes serious eye irritation |
| H331 | Toxic if inhaled |
| H335 | May cause respiratory irritation |
| H336 | May cause drowsiness or dizziness |
| H341 | Suspected of causing genetic defects |
| H350 | May cause cancer |
| H361 | Suspected of damaging fertility or the unborn child |
| H370 | Causes damage to organs |
| H372 | Causes damage to organs through prolonged or repeated exposure |
| H373 | May cause damage to organs through prolonged or repeated exposure |
| H400 | Very toxic to aquatic life |

| Full text of H-statements: | |
|---|---|
| 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.