



VT-502 Panel Epoxy Part B

Safety Data Sheet

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

Issue date: 9/27/2021 Revision date: 9/3/2022 Supersedes: 9/27/2021 Version: 1.1

SECTION 1: Identification

1.1. GHS Product identifier

Product form : Mixture
Product name : VT-502 Panel Epoxy Part B
UN-No. (ADR) : 2735
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 : Adhesives

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 corrosion/irritation, Category 1	H314	Calculation method
Serious eye damage/eye irritation, Category 1	H318	Calculation method
Skin sensitisation, Category 1	H317	Calculation method
Carcinogenicity Not classified		Expert judgement
Specific target organ toxicity – Repeated exposure, Category 1	H372	Calculation method

Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects : Causes damage to organs through prolonged or repeated exposure, Causes severe skin burns and eye damage, May cause an allergic skin reaction, Causes serious eye damage.

2.2. GHS Label elements, including precautionary statements

Labelling according to the United Nations GHS

Hazard pictograms (GHS UN) :



Signal word (GHS UN) :

Danger

Hazardous ingredients

FATTY ACIDS, C18-UNSATD., DIMERS, POLYMERS WITH TALL-OIL FATTY ACIDS AND TRIETHYLENETETRAMINE; N,N'-BIS(3-AMINOPROPYL)ETHYLENEDIAMINE; 4,4'-DIAMINODICYCLOHEXYLMETAHNE; 3-N-ALKENYL PHENOL; 3,6-diazaoctanethylenediamin; triethylenetetramine; SILICON DIOXIDE

Hazard statements (GHS UN) :

H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction
H372 - Causes damage to organs through prolonged or repeated exposure

Precautionary statements (GHS UN) :

P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 - Wash hands thoroughly after handling.

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P264+P265 - Wash hands thoroughly after handling. Do not touch eyes.
P270 - Do not eat, drink or smoke when using this product.
P272 - Contaminated work clothing should not be allowed out of the workplace.

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
SILICON DIOXIDE	CAS-No.: 14808-60-7	10 – 30	Carc. 1A, H350 STOT SE 3, H335 STOT RE 1, H372
3-N-ALKENYL PHENOL	CAS-No.: 8007-24-7	1 – 10	Skin Sens. 1, H317
4,4'-DIAMINODICYCLOHEXYLMETAHNE	CAS-No.: 1761-71-3	1 – 10	Acute Tox. 4 (Oral), H302 Skin Corr. 1, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT RE 2, H373
2,4,6-tris(dimethylaminomethyl)phenol	CAS-No.: 90-72-2	1 – 10	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319
FATTY ACIDS, C18-UNSATD.,DIMERS,POLYMERS WITH TALL-OIL FATTY ACIDS AND TRIETHYLENETETRAMINE	CAS-No.: 68082-29-1	1 – 10	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 2, H411
N,N'-BIS(3-AMINOPROPYL)ETHYLENEDIAMINE	CAS-No.: 10563-26-5	0.1 – 1	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317
3,6-diazaoctanethylenediamin; triethylenetetramine	CAS-No.: 112-24-3	0.1 – 1	Acute Tox. 4 (Dermal), H312 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Chronic 3, H412

Full text of H-statements: see section 16

SECTION 4: First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures general	: Call a physician immediately.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion	: Rinse mouth. Do not induce vomiting. Call a physician immediately.

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4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after skin contact	: Burns. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Serious damage to eyes.
Symptoms/effects after ingestion	: Burns.

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. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.
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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".
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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. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes. Wear personal protective equipment.
Hygiene measures	: Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. 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 locked up. Store in a well-ventilated place. Keep cool.
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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

SILICON DIOXIDE (14808-60-7)

EU - Indicative Occupational Exposure Limit (IOEL)

Local name	Silica crystalline (Quartz)
IOELV TWA (mg/m³)	0.05 mg/m³ (respirable dust)
Notes	(Year of adoption 2003)
Regulatory reference	SCOEL Recommendations

USA - ACGIH - Occupational Exposure Limits

Local name	Silica crystalline - quartz
ACGIH TWA (mg/m³)	0.025 mg/m³ (R - Respirable particulate matter)
Remark (ACGIH)	TLV® Basis: Pulm fibrosis; lung cancer. Notations: A2 (Suspected Human Carcinogen)
Regulatory reference	ACGIH 2021

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
Colour	: Grey.
Odour	: Perceptible 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	: Not applicable
Decomposition temperature	: Not available
pH	: Not applicable
pH solution	: Not available

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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	: 1.88
Relative vapour density at 20°C	: Not applicable
Solubility	: Not available
Particle size	: Not available

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

Explosive limits	: Not applicable
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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
Skin corrosion/irritation	: Causes severe skin burns. pH: Not applicable
Serious eye damage/irritation	: Causes serious eye damage. pH: Not applicable
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

SILICON DIOXIDE (14808-60-7)

STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: Causes damage to organs through prolonged or repeated exposure.

4,4'-DIAMINODICYCLOHEXYLMETAHNE (1761-71-3)

STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
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SILICON DIOXIDE (14808-60-7)	
STOT-repeated exposure	Causes 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	: Before neutralisation, the product may represent a danger to aquatic organisms.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

12.2. Persistence and degradability

VT-502 Panel Epoxy Part B	
Persistence and degradability	Not rapidly degradable
FATTY ACIDS, C18-UNSATD.,DIMERS,POLYMERS WITH TALL-OIL FATTY ACIDS AND TRIETHYLENETETRAMINE (68082-29-1)	
Persistence and degradability	Not rapidly degradable
N,N'-BIS(3-AMINOPROPYL)ETHYLENEDIAMINE (10563-26-5)	
Persistence and degradability	Not rapidly degradable
2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)	
Persistence and degradability	Not rapidly degradable
4,4'-DIAMINODICYCLOHEXYLMETAHNE (1761-71-3)	
Persistence and degradability	Not rapidly degradable
3-N-ALKENYL PHENOL (8007-24-7)	
Persistence and degradability	Not rapidly degradable
3,6-diazaoctanethylenediamin; triethylenetetramine (112-24-3)	
Persistence and degradability	Not rapidly degradable
SILICON DIOXIDE (14808-60-7)	
Persistence and degradability	Not rapidly degradable

12.3. Bioaccumulative potential

VT-502 Panel Epoxy Part B	
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

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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	2735	2735
14.2. UN Proper Shipping Name		
Not applicable	AMINES, LIQUID, CORROSIVE, N.O.S.	Amines, liquid, corrosive, n.o.s.
Transport document description		
Not applicable	UN 2735 AMINES, LIQUID, CORROSIVE, N.O.S., 8, III	UN 2735 Amines, liquid, corrosive, n.o.s., 8, III
14.3. Transport hazard class(es)		
Not applicable	8	8
Not applicable		
14.4. Packing group		
Not applicable	III	III
14.5. Environmental hazards		
Not applicable	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No
No supplementary information available		

14.6. Special precautions for user

UN RTDG

Not applicable

IMDG

Special provisions (IMDG) : 223, 274
Limited quantities (IMDG) : 5 L
Excepted quantities (IMDG) : E1
Packing instructions (IMDG) : P001, LP01
IBC packing instructions (IMDG) : IBC03
Tank instructions (IMDG) : T7
Tank special provisions (IMDG) : TP1, TP28
EmS-No. (Fire) : F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS-No. (Spillage) : S-B - SPILLAGE SCHEDULE Bravo - CORROSIVE SUBSTANCES
Stowage category (IMDG) : A
Segregation (IMDG) : SGG18, SG35
Properties and observations (IMDG) : Colourless to yellowish liquids or solutions with a pungent odour. Miscible with or soluble in water. When involved in a fire, evolve toxic gases. Corrosive to most metals, especially to copper and its alloys. Reacts violently with acids. Cause burns to skin, eyes and mucous membranes.

IATA

PCA Excepted quantities (IATA) : E1

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PCA Limited quantities (IATA)	: Y841
PCA limited quantity max net quantity (IATA)	: 1L
PCA packing instructions (IATA)	: 852
PCA max net quantity (IATA)	: 5L
CAO packing instructions (IATA)	: 856
CAO max net quantity (IATA)	: 60L
Special provisions (IATA)	: A3, A803
ERG code (IATA)	: 8L

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	: 9/27/2021
Revision date	: 9/3/2022
Supersedes	: 9/27/2021

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
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Full text of H-statements:

Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Carc. 1A	Carcinogenicity, Category 1A
Carc. Not classified	Carcinogenicity Not classified
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Corr. 1	Skin corrosion/irritation, Category 1
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2

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Full text of H-statements:	
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1A	Skin sensitisation, category 1A
STOT RE 1	Specific target organ toxicity – Repeated exposure, 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
H302	Harmful if swallowed
H311	Toxic in contact with skin
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H350	May cause cancer
H372	Causes damage to organs through prolonged or repeated exposure
H373	May cause damage to organs through prolonged or repeated exposure
H411	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.