HIT-RE 500 V4

Safety information for 2-Component-products

Issue date: 17/04/2025 Revision date: 17/04/2025 Supersedes: 11/11/2022 Version: 3.0

SECTION 1: Kit identification

1.1 Product identifier

Product name	HIT-RE 500 V4
	
Product code	BU Anchor

1.2 Details of the supplier of the Safety information for 2-Component-products

Hilti Far East Private Ltd.
80 Pasir Panjang Road,
#16-83/84 Mapletree Business City
117372 Singapore - Singapur
T +65 6777 7887 - F +65 6777 3057
sg-customerservice@hilti.com

SECTION 2: General information

Restrictions on use	Restricted to professional users
Storage	Storage temperature : 5 - 25 °C

A SDS for each of these components is included. Please do not separate any component SDS from this cover page

This Kit should be handled in accordance with good laboratory practices and appropriate personal protective equipment should be used

SECTION 3: Kit contents

Classification of the Product

GHS SG classification

Health hazards	Skin corrosion/irritation, Category 1B Serious eye damage/eye irritation, Category 1 Skin sensitisation, Category 1 Reproductive toxicity, Category 1B Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
Environmental hazards	Hazardous to the aquatic environment – Chronic Hazard, Category 2

Label elements

GHS SG labelling

Hazard pictograms (GHS SG)

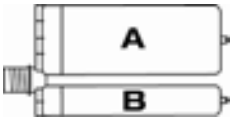
GHS05 GHS07 GHS08 GHS09

Signal word (GHS SG)	Danger
Hazardous ingredients	Epoxy resin, Amines

Hazard statements (GHS SG)	H314 - Causes severe skin burns and eye damage. H317 - May cause an allergic skin reaction. H335 - May cause respiratory irritation. H360 - May damage fertility or the unborn child. H411 - Toxic to aquatic life with long lasting effects.
Precautionary statements (GHS SG)	P280 - Wear eye protection, protective clothing, protective gloves. P262 - Do not get in eyes, on skin, or on clothing. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P302+P352 - IF ON SKIN: Wash with plenty of water. P337+P313 - If eye irritation persists: Get medical advice/attention. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

Additional information

2-component-foilpack, contains:
Component A: Epoxy resin, Reactive diluent, inorganic filler
Component B: Amine hardener, inorganic filler



Name	General description	Quantity	Unit	GHS SG classification
HIT-RE 500 V4, A		1	pcs (pieces)	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Repr. 1B, H360 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
HIT-RE 500 V4, B		1	pcs (pieces)	Acute Tox. 5 (Oral), H303 Skin Corr. 1B, H314 Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Acute 2, H401 Aquatic Chronic 3, H412

SECTION 4: General advice

General advice	For professional users only

SECTION 5: Safe handling advice

General measures	Spilled material may present a slipping hazard
Environmental precautions	Prevent entry to sewers and public waters Notify authorities if liquid enters sewers or public waters Avoid release to the environment Full or only partially emptied cartridges must be disposed of as special waste in accordance with official regulations. After curing, the product can be disposed of with household waste
Storage conditions	Protect from sunlight. Store in a well-ventilated place.
Technical measures	Comply with applicable regulations
Precautions for safe handling	Wear personal protective equipment Avoid contact with skin and eyes Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work Avoid contact during pregnancy/while nursing
Methods for cleaning up	This material and its container must be disposed of in a safe way, and as per local legislation Mechanically recover the product On land, sweep or shovel into suitable containers Store away from other materials.

For containment	Collect spillage.
Incompatible materials	Sources of ignition Direct sunlight
Incompatible products	Strong bases Strong acids

SECTION 6: First aid measures

First-aid measures after eye contact	Get immediate medical advice/attention. Immediately rinse with water for a prolonged period while holding the eyelids wide open Remove contact lenses, if present and easy to do. Continue rinsing. Consult an eye specialist
First-aid measures after ingestion	Do not induce vomiting Rinse mouth Immediately call a POISON CENTER/doctor.
First-aid measures after inhalation	Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	Wash with plenty of water/… Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get immediate medical advice/attention.
First-aid measures general	Never give anything by mouth to an unconscious person If you feel unwell, seek medical advice (show the label where possible)
Symptoms/effects	Causes severe skin burns and eye damage.
Symptoms/effects after eye contact	Causes serious eye damage.
Symptoms/effects after skin contact	May cause an allergic skin reaction.

SECTION 7: Fire fighting measures

Firefighting instructions	Use water spray or fog for cooling exposed containers Exercise caution when fighting any chemical fire Prevent fire fighting water from entering the environment
Protection during firefighting	Self-contained breathing apparatus Do not enter fire area without proper protective equipment, including respiratory protection
Hazardous decomposition products in case of fire	Thermal decomposition generates : Carbon dioxide Carbon monoxide

SECTION 8: Other information

No data available

HIT-RE 500 V4, A

Safety Data Sheet

According to SS 586 Part 3 (2022)
Issue date: 24.04.2025 Revision date: 24.04.2025 Supersedes: 11.11.2022 Version: 3.0

SECTION 1: Identification

1.1. Product identifier

Trade name	HIT-RE 500 V4, A
Product code	BU Anchor

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended uses and restrictions	Restricted to professional users
Recommended use	For professional use only
Restrictions on use	Restricted to professional users

1.4. Supplier's details

Supplier
Hilti Far East Private Ltd.
80 Pasir Panjang Road, #16-83/84 Mapletree Business City Singapore
Singapur 117372
T +65 6777 7887 - F +65 6777 3057
sg-customerservice@hilti.com

Department issuing data specification sheet
Hilti Entwicklungsgesellschaft mbH
Hiltistraße 6 Kaufering Deutschland 86916
T +49 8191 906876
product.compliance-anchors@hilti.com

1.5. Emergency phone number

Emergency number	GBK GmbH Global Regulatory Compliance +49 (0)6132-84463

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Health hazards	Skin corrosion/irritation, Category 2 Serious eye damage/eye irritation, Category 1 Skin sensitisation, Category 1 Reproductive toxicity, Category 1B
Environmental hazards	Hazardous to the aquatic environment – Chronic Hazard, Category 2

2.2. GHS label elements, including precautionary statements

Hazard pictograms (GHS SG)

Signal word (GHS SG)

Danger

Hazard statements (GHS SG)

H315 : Causes skin irritation
H317 : May cause an allergic skin reaction
H318 : Causes serious eye damage
H360 : May damage fertility or the unborn child
H411 : Toxic to aquatic life with long lasting effects

Precautionary statements

Prevention

P280 : Wear eye protection, protective clothing, protective gloves.
P262 : Do not get in eyes, on skin, or on clothing.

Response
P305+P351+P338 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 : If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 : If eye irritation persists: Get medical advice/attention.
P302+P352 : IF ON SKIN: Wash with plenty of soap and water.

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	Concentration (%)	Formula	Product identifier	GHS SG classification
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol ()	10 – 25	(C6H6O.C3H5ClO.CH2O)x	CAS-No.: 9003-36-5 EC-No.: 500-006-8	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411
Trimethylolethantriglycidylether ()	5 – 10	-	CAS-No.: 68460-21-9	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317
butanedioldiglycidyl ether ()	5 – 10	C10H18O4	CAS-No.: 2425-79-8 EC-No.: 219-371-7 EC Index-No.: 603-072-00-7	Flam. Liq. Not classified Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Repr. 1B, H360F Aquatic Acute Not classified Aquatic Chronic Not classified
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane ()	2.5 – 5	C9H20O5Si	CAS-No.: 2530-83-8 EC-No.: 219-784-2	Flam. Liq. Not classified Acute Tox. Not classified (Oral) Acute Tox. Not classified (Dermal) Eye Dam. 1, H318 Aquatic Acute Not classified

SECTION 4: First-aid measures

4.1. Description of necessary first aid measures

First-aid measures general	Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
Inhalation	Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh air. Allow the victim to rest.
Skin contact	Gently wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get immediate medical advice/attention.
Eye contact	Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persists.
Ingestion	Rinse mouth. Get medical advice/attention. Do not induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after skin contact	Causes skin irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact	Causes serious eye irritation.

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

No additional information available

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media	Water spray. Carbon dioxide. Dry powder. Foam. Sand.
Unsuitable extinguishing media	Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire	Thermal decomposition generates : Carbon dioxide. Carbon monoxide.

5.3. Special protective actions for fire fighters

Firefighting instructions	Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protection during firefighting	Self-contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures: Spilled material may present a slipping hazard.

6.1.1. For non-emergency personnel

Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment	Use personal protective equipment as required. Equip cleanup crew with proper protection.
Emergency procedures	Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment. Full or only partially emptied cartridges must be disposed of as special waste in accordance with official regulations. After curing, the product can be disposed of with household waste.

6.3. Methods and material for containment and cleaning up

For containment	Collect spillage.
Methods for cleaning up	This material and its container must be disposed of in a safe way, and as per local legislation. Mechanically recover the product. On land, sweep or shovel into suitable containers. Store away from other materials.

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	Wear personal protective equipment. Avoid contact with skin and eyes. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
Hygiene measures	Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	Protect from sunlight.
Incompatible products	Strong bases. Strong acids.
Incompatible materials	Sources of ignition. Direct sunlight.
Storage temperature	5 – 25 °C
Heat and ignition sources	Keep away from heat and direct sunlight.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters/Occupational exposure limits

No additional information available

8.2. Appropriate engineering control measures

Appropriate engineering controls	No specific measures identified.

8.3. Personal protection – individual protection measures, such as personal protective equipment (PPE)

Materials for protective clothing	Long sleeved protective clothing
Hand protection	Wear protective gloves. The permeation time is not the maximum wearing time! Generally speaking, it must be reduced. Contact with either mixtures of substances or different substances may shorten the protective function's effective duration. Immediately change contaminated gloves

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	4 (> 120 minutes)	> 0,2		EN ISO 374

Eye protection: Wear security glasses which protect from splashes

Type	Field of application	Characteristics	Standard
Safety glasses	Droplet	clear	EN 166, EN 170

Personal protective equipment symbol(s)

Environmental exposure controls	No specific measures are required provided the product is handled in accordance with the general rules of occupational hygiene and safety.
Consumer exposure controls	Avoid contact during pregnancy/while nursing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	Thixotropic paste.

Colour	Light grey
Odour	characteristic
Odour threshold	No data available
pH	6.6
Relative evaporation rate (butylacetate=1)	No data available
Evaporation rate	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	Not applicable
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Flammability	Non flammable.
Vapour pressure	No data available
Relative vapour density at 20°C	No data available
Relative density	No data available
Density	1.45 g/cm³
Solubility	insoluble in water.
Partition coefficient n-octanol/water (Log Pow)	No data available
Partition coefficient n-octanol/water (Log Kow)	No data available
Viscosity, dynamic	45 – 59 Pa·s 23 °C
Explosive properties	No data available
Oxidising properties	No data available
Explosive limits	No data available
Particle size	No data available
Particle size distribution	No data available
Particle shape	No data available
Particle aspect ratio	No data available
Particle specific surface area	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition generates : fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Acute toxicity

Acute toxicity (oral)	Not classified

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

butanedioldiglycidyl ether (2425-79-8)	
LD50 oral rat	2980 mg/kg (Rat)
LD50 oral	1163 mg/kg (Rat; Exp. Key study ECHA)
LD50 dermal rat	> 2150 mg/kg bodyweight (Equivalent or similar to OECD 402, 24 h, Rat, Male / female, Experimental value, Dermal, 7 day(s))
LD50 dermal rabbit	1130 mg/kg (Rabbit)

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane (2530-83-8)	
LD50 oral rat	8025 mg/kg bodyweight (Rat; Equivalent or similar to OECD 401; Experimental value)
LD50 dermal rabbit	4250 mg/kg bodyweight (Rabbit; Experimental value; Equivalent or similar to OECD 402)

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol (9003-36-5)	
LD50 oral rat	> 5000 mg/kg bodyweight (Rat; ECHA)
LD50 dermal rat	> 2000 mg/kg bodyweight (Rat; ECHA)

Skin corrosion/irritation	Causes skin irritation. pH: 6.6
Serious eye damage/irritation	Causes serious eye damage.
Respiratory or skin sensitisation	May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	May damage fertility or the unborn child.
STOT-single exposure	Not classified
STOT-repeated exposure	Not classified
Aspiration hazard	Not classified

HIT-RE 500 V4, A	
Density	1.45 g/cm³

Potential adverse human health effects and symptoms	No additional information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water	Toxic 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)	Toxic to aquatic life with long lasting effects.
Other information	Avoid release to the environment.

Trimethylolethantriglycidylether (68460-21-9)	

butanedioldiglycidyl ether (2425-79-8)	
LC50 - Fish [1]	24 mg/l (96 h; Pisces) ECHA
LC50 - Other aquatic organisms [1]	> 160 mg/l
NOEC (acute)	40 mg/l
Partition coefficient n-octanol/water (Log Pow)	-0.27 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)

butanedioldiglycidyl ether (2425-79-8)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.1 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP)
Threshold limit - Algae [1]	88930 mg/l (96 h; Algae)

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane (2530-83-8)	
LC50 - Fish [1]	55 mg/l (96 h; Cyprinus carpio; Young)
LC50 - Fish [2]	237 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
EC50 - Crustacea [1]	473 – 710 mg/l (48 h; Daphnia magna)
Partition coefficient n-octanol/water (Log Pow)	-0.92 (Estimated value)
Threshold limit - Algae [1]	119 mg/l (7 days; Anabaena flosaquae)
Threshold limit - Algae [2]	250 mg/l (72 h; Selenastrum capricornutum)

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol (9003-36-5)	

12.2. Persistence and degradability

HIT-RE 500 V4, A	
Persistence and degradability	May cause long-term adverse effects in the environment.

butanedioldiglycidyl ether (2425-79-8)	
Biochemical oxygen demand (BOD)	0.01982 g O_2/g substance

12.3. Bioaccumulative potential

HIT-RE 500 V4, A	
Bioaccumulative potential	Not established.

butanedioldiglycidyl ether (2425-79-8)	
Partition coefficient n-octanol/water (Log Pow)	-0.27 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.1 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP)

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane (2530-83-8)	
Partition coefficient n-octanol/water (Log Pow)	-0.92 (Estimated value)

12.4. Mobility in soil

HIT-RE 500 V4, A	
Mobility in soil	No additional information available

butanedioldiglycidyl ether (2425-79-8)	
Surface tension	44.4 mN/m (20 °C, 90 %, EU Method A.5: Surface tension)
Partition coefficient n-octanol/water (Log Pow)	-0.27 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.1 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP)
Ecology - soil	Highly mobile in soil.

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane (2530-83-8)	
Partition coefficient n-octanol/water (Log Pow)	-0.92 (Estimated value)

12.5. Other adverse effects

Ozone: Not classified
Other adverse effects: No additional information available

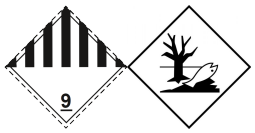
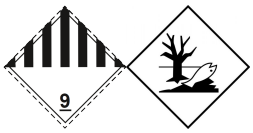
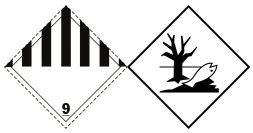
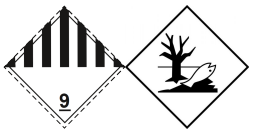
SECTION 13: Disposal considerations

Product/Packaging disposal recommendations: After curing, the product can be disposed of with household waste. Full or only partially emptied cartridges must be disposed of as special waste in accordance with official regulations. Packaging contaminated by the product : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

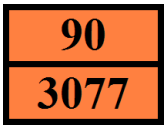
In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
Special provision(s) applied : 375	Special provision(s) applied : 969	Special provision(s) applied : A197	Special provision(s) applied : 375
These substances when carried in single or combination packagings containing a net quantity per single or inner packaging of 5 l or less for liquids or having a net mass per single or inner packaging of 5 kg or less for solids, are not subject to any other provisions of ADR provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.			
14.1. UN number or ID number			
UN 3077	UN 3077	UN 3077	UN 3077
14.2. UN proper shipping name			
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane ; Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane ; Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol)	Environmentally hazardous substance, solid, n.o.s. (2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane ; Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane ; Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol)
Transport document description			
UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane ; Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol), 9, III, (-)	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane ; Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol), 9, III	UN 3077 Environmentally hazardous substance, solid, n.o.s. (2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane ; Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol), 9, III	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane ; Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol), 9, III

ADR	IMDG	IATA	RID
14.3. Transport hazard class(es)			
9	9	9	9
			
14.4. Packing group			
III	III	III	III
14.5. Environmental hazards			
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
Environmentally hazardous substances derogation applies (quantity of liquids ≤ 5 litres or net mass of solids ≤ 5 kg). The environmentally hazardous substance mark is therefore not required, as stated in the ADR regulation, section 5.2.1.8.1.			
not restricted according ADR Special Provision SP375, IATA-DGR Special Provision A197 and IMDG-Code 2.10.2.7			

14.6. Special precautions for user

Overland transport

Classification code (ADR)	M7
Special provisions (ADR)	274, 335, 375, 601
Limited quantities (ADR)	5kg
Packing instructions (ADR)	P002, IBC08, LP02, R001
Mixed packing provisions (ADR)	MP10
Transport category (ADR)	3
Orange plates	
Tunnel restriction code (ADR)	-

Transport by sea

Special provisions (IMDG)	274, 335, 966, 967, 969
Limited quantities (IMDG)	5 kg
Packing instructions (IMDG)	LP02, P002
EmS-No. (Fire)	F-A
EmS-No. (Spillage)	S-F
Stowage category (IMDG)	A
Stowage and handling (IMDG)	SW23
MFAG-No	171

Air transport

PCA packing instructions (IATA)	956
PCA max net quantity (IATA)	400kg
CAO packing instructions (IATA)	956
Special provisions (IATA)	A97, A158, A179, A197, A215

Rail transport

Special provisions (RID)	274, 335, 375, 601
Limited quantities (RID)	5kg
Packing instructions (RID)	P002, IBC08, LP02, R001

14.7. Maritime 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

Regulation		Component / Mixture
Arms and Explosives Act	Not applicable	
Chemical Weapons Prohibition Act		
Environmental Protection and Management (Air Impurities) Regulations		
Environmental Protection and Management Act (Hazardous Substances)		
Environmental Public Health (Quality of Piped Drinking Water) Regulations		
Fire Safety Act/Fire Safety (Petroleum and Flammable Materials) Regulations		
Maritime and Port Authority of Singapore (Dangerous, Petroleum and Explosives) Regulations		
Misuse of Drugs Act		
Poisons Act		
Poisons Rules		
Hazardous waste (Control of export, import and transit) Act		
Strategic goods (Control) Act		

15.2. International regulations

No additional information available

15.3 Chemical inventory status

No additional information available

SECTION 16: Other information

Issue date	24/04/2025
Revision date	24/04/2025
Abbreviations and acronyms	ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road ATE - Acute Toxicity Estimate BCF - Bioconcentration factor CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008 DMEL - Derived Minimal Effect level DNEL - Derived-No Effect Level IATA - International Air Transport Association EC50 - Median effective concentration IMDG - International Maritime Dangerous Goods LC50 - Median lethal concentration LD50 - Median lethal dose

LOAEL - Lowest Observed Adverse Effect Level
NOAEC - No-Observed Adverse Effect Concentration
NOAEL - No-Observed Adverse Effect Level
NOEC - No-Observed Effect Concentration
PBT - Persistent Bioaccumulative Toxic
PNEC - Predicted No-Effect Concentration
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS - Safety Data Sheet
vPvB - Very Persistent and Very Bioaccumulative

Other information: None.

Indication of changes			
Section	**Changed item**	**Change**	**Comments**
15	Regulations Singapore	Modified	

SDS_SG_Hilti

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.

HIT-RE 500 V4, B

Safety Data Sheet

According to SS 586 Part 3 (2022)
Issue date: 23.04.2025 Revision date: 23.04.2025 Supersedes: 11.11.2022 Version: 1.2

SECTION 1: Identification

1.1. Product identifier

Trade name: HIT-RE 500 V4, B
Product code: BU Anchor

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use: For professional use only

1.4. Supplier's details

Supplier
Hilti Far East Private Ltd.
80 Pasir Panjang Road, #16-83/84 Mapletree Business City Singapore
Singapur 117372
T +65 6777 7887 - F +65 6777 3057
sg-customerservice@hilti.com

Department issuing data specification sheet
Hilti Entwicklungsgesellschaft mbH
Hiltistraße 6 Kaufering Deutschland 86916
T +49 8191 906876
product.compliance-anchors@hilti.com

1.5. Emergency phone number

Emergency number: GBK GmbH Global Regulatory Compliance
+49 (0)6132-84463

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Health hazards: Skin corrosion/irritation, Category 1B
Skin sensitisation, Category 1
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

2.2. GHS label elements, including precautionary statements

Hazard pictograms (GHS SG)

Signal word (GHS SG)

Danger

Hazard statements (GHS SG)

H314 : Causes severe skin burns and eye damage
H317 : May cause an allergic skin reaction
H335 : May cause respiratory irritation

Precautionary statements

Prevention

P280 : Wear eye protection, protective clothing, protective gloves.
P262 : Do not get in eyes, on skin, or on clothing.

Response

P305+P351+P338 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 : If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 : If eye irritation persists: Get medical advice/attention.
P302+P352 : IF ON SKIN: Wash with plenty of soap and water.

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	Concentration (%)	Formula	Product identifier	GHS SG classification
2-methyl-1,5-pentanediamine ()	25 – 35	C6H16N2	CAS-No.: 15520-10-2 EC-No.: 239-556-6	Flam. Liq. Not classified Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Corr. 1, H314 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute Not classified Aquatic Chronic Not classified
Phenol, styrenated ()	5 – 10	-	CAS-No.: 61788-44-1 EC-No.: 262-975-0	Flam. Liq. Not classified Acute Tox. Not classified (Oral) Acute Tox. Not classified (Dermal) Acute Tox. Not classified (Inhalation:dust,mist) Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 2, H411

Name	Concentration (%)	Formula	Product identifier	GHS SG classification
m-Xylylenediamine ()	4 – <8	C8H12N2	CAS-No.: 1477-55-0 EC-No.: 216-032-5	Flam. Liq. Not classified Acute Tox. 4 (Oral), H302 Acute Tox. Not classified (Dermal) Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute Not classified Aquatic Chronic Not classified Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Sens. 1B, H317
2,4,6-tris(dimethylaminomethyl)phenol ()	1 – 3	C15H27N3O	CAS-No.: 90-72-2 EC-No.: 202-013-9 EC Index-No.: 603-069-00-0	Flam. Liq. Not classified Acute Tox. 4 (Oral), H302 Acute Tox. Not classified (Dermal) Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Aquatic Acute Not classified Aquatic Chronic Not classified
3-Aminopropyltriethoxysilan ()	1 – 3	C9H23NO3Si	CAS-No.: 919-30-2 EC-No.: 213-048-4 EC Index-No.: 612-108-00-0	Flam. Liq. Not classified Acute Tox. 4 (Oral), H302 Acute Tox. Not classified (Dermal) Acute Tox. Not classified (Inhalation:dust,mist) Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Acute Not classified Aquatic Chronic Not classified

SECTION 4: First-aid measures

4.1. Description of necessary first aid measures

First-aid measures general	Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
Inhalation	Remove person to fresh air and keep comfortable for breathing.
Skin contact	Wash with plenty of water/…. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get immediate medical advice/attention.
Eye contact	Get immediate medical advice/attention. Immediately rinse with water for a prolonged period while holding the eyelids wide open. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an eye specialist.
Ingestion	Do not induce vomiting. Rinse mouth. Immediately call a POISON CENTER/doctor.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects	Causes severe skin burns and eye damage.
Symptoms/effects after skin contact	May cause an allergic skin reaction.
Symptoms/effects after eye contact	Causes serious eye damage.

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

No additional information available

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media	Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire	Thermal decomposition generates : Carbon dioxide. Carbon monoxide.

5.3. Special protective actions for fire fighters

Firefighting instructions	Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protection during firefighting	Self-contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures: Spilled material may present a slipping hazard.

6.1.1. For non-emergency personnel

Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment	Use personal protective equipment as required. Equip cleanup crew with proper protection.
Emergency procedures	Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment. Full or only partially emptied cartridges must be disposed of as special waste in accordance with official regulations. After curing, the product can be disposed of with household waste.

6.3. Methods and material for containment and cleaning up

For containment: Collect spillage.

Methods for cleaning up	This material and its container must be disposed of in a safe way, and as per local legislation. Mechanically recover the product. On land, sweep or shovel into suitable containers. Store away from other materials.
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	Wear personal protective equipment. Avoid contact with skin and eyes. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid contact during pregnancy/while nursing.
Hygiene measures	Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	Comply with applicable regulations.
Storage conditions	Protect from sunlight. Store in a well-ventilated place.
Incompatible products	Strong bases. Strong acids.
Incompatible materials	Sources of ignition. Direct sunlight.
Storage temperature	5 – 25 °C
Heat and ignition sources	Keep away from heat and direct sunlight.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters/Occupational exposure limits

HIT-RE 500 V4, B	
Singapore - Occupational Exposure Limits	
Local name	Aluminium oxide
PEL (OEL TWA)	10 mg/m³
Regulatory reference	WSH (General Provision) Regulation 2014

8.2. Appropriate engineering control measures

Appropriate engineering controls	Ensure good ventilation of the work station.

8.3. Personal protection – individual protection measures, such as personal protective equipment (PPE)

Materials for protective clothing	Long sleeved protective clothing
Hand protection	Wear protective gloves. The permeation time is not the maximum wearing time! Generally speaking, it must be reduced. Contact with either mixtures of substances or different substances may shorten the protective function's effective duration. Immediately change contaminated gloves

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	4 (> 120 minutes)	> 0,2		EN ISO 374

Eye protection	Wear security glasses which protect from splashes

Personal protective equipment symbol(s)

Environmental exposure controls	No specific measures are required provided the product is handled in accordance with the general rules of occupational hygiene and safety.
Consumer exposure controls	Avoid contact during pregnancy/while nursing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	Thixotropic paste.
Colour	red
Odour	Amine-like
Odour threshold	No data available
pH	No data available
Relative evaporation rate (butylacetate=1)	No data available
Evaporation rate	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	Not applicable
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Flammability	Non flammable.
Vapour pressure	No data available
Relative vapour density at 20°C	No data available
Relative density	No data available
Density	1.31 g/cm³
Solubility	insoluble in water.
Partition coefficient n-octanol/water (Log Pow)	No data available
Partition coefficient n-octanol/water (Log Kow)	No data available
Viscosity, dynamic	50 – 70 Pa·s HN-0333
Explosive properties	No data available
Oxidising properties	No data available
Explosive limits	No data available
Particle size	No data available
Particle size distribution	No data available
Particle shape	No data available
Particle aspect ratio	No data available
Particle specific surface area	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Corrosive vapours.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition generates : fume. Carbon monoxide. Carbon dioxide. Corrosive vapours.

SECTION 11: Toxicological information

11.1. Acute toxicity

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

2-methyl-1,5-pentanediamine (15520-10-2)	
LD50 oral rat	1690 mg/kg (Rat)
LD50 oral	1170 mg/kg (Rat)
LC50 Inhalation - Rat	4.9 mg/l

Phenol, styrenated (61788-44-1)	
LD50 oral rat	> 2500 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 Inhalation - Rat	158.31 mg/l/4h

m-Xylylenediamine (1477-55-0)	
LD50 oral rat	930 mg/kg
LD50 dermal rat	> 3100 mg/kg
LD50 dermal	> 3100 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	1.34 mg/l/4h

2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)	
LD50 oral rat	2169 mg/kg (Rat; Equivalent or similar to OECD 401; Literature study; 2169 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rat	> 2000 mg/kg (Rat; Literature study; Other; >1 ml/kg; Rat; Experimental value)

3-Aminopropyltriethoxysilan (919-30-2)	
LD50 oral rat	1.57 – 2.83 ml/kg (EPA OTS 798.1175, Rat, Male / female, Experimental value, Oral)
LD50 oral	1570 mg/kg
LD50 dermal rabbit	4.29 ml/kg (EPA OTS 798.1100, 24 h, Rabbit, Male / female, Experimental value, Dermal)
LD50 dermal	4290 mg/kg
LC50 Inhalation - Rat [ppm]	> 5 ppm (OECD 403: Acute Inhalation Toxicity, 6 h, Rat, Male, Experimental value, Inhalation (vapours))
LC50 Inhalation - Rat (Dust/Mist)	7.35 mg/l/4h

Skin corrosion/irritation	Causes severe skin burns.
Serious eye damage/irritation	Assumed to cause serious eye damage
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	May cause respiratory irritation.

2-methyl-1,5-pentanediamine (15520-10-2)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure	Not classified
Aspiration hazard	Not classified

HIT-RE 500 V4, B	
Density	1.31 g/cm³

Potential adverse human health effects and symptoms	No additional information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water	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)	Not classified
Other information	Avoid release to the environment.

2-methyl-1,5-pentanediamine (15520-10-2)	
LC50 - Fish [1]	130 mg/l (LC50; 48 h)
LOEC (acute)	1800 mg/l
NOEC (acute)	1000 mg/l
Partition coefficient n-octanol/water (Log Pow)	0.27 (Estimated value)

Phenol, styrenated (61788-44-1)	
LC50 - Fish [1]	5.6 mg/l
LC50 - Other aquatic organisms [1]	9.7 mg/l
EC50 - Crustacea [1]	1.44 mg/l
NOEC (acute)	3.2 mg/l
BCF - Fish [1]	3246 l/kg (BCFBAF v3.01, Pisces, Fresh water, Weight of evidence, Fresh weight)
BCF - Fish [2]	3246 mg/l
Partition coefficient n-octanol/water (Log Pow)	6.24 – 7.77 (Experimental value; OECD 123: Partition Coefficient (1-Octanol/Water): Slow-Stirring Method)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.1 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value)
Threshold limit - Algae [1]	0.326 mg/l (72 h; Algae)
Threshold limit - Algae [2]	0.14 mg/l (72 h; Algae)

m-Xylylenediamine (1477-55-0)	
LC50 - Fish [1]	75 mg/l
LC50 - Other aquatic organisms [1]	20.3 ppb
EC50 - Crustacea [1]	15 mg/l
LOEC (chronic)	15 mg/l
NOEC (acute)	10.5 mg/kg
NOEC (chronic)	4.7 mg/l
NOEC chronic crustacea	4.7 mg/l

2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)	
LC50 - Fish [1]	> 100 mg/l (96 h; Pisces; Nominal concentration)
LC50 - Fish [2]	70.9 mg/l (96 h; Pisces)

2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)	
EC50 - Other aquatic organisms [1]	84 mg/l (72 h; Desmodesmus subspicatus; growth rate; ECHA)
ErC50 algae	84 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, GLP)
NOEC (chronic)	2 mg/l (28 d; activated sludge, domestic; respiration rate; ECHA)
Partition coefficient n-octanol/water (Log Pow)	0.77 (Literature; 0.219; Experimental value; Equivalent or similar to OECD 107; 21.5 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.32 (log Koc, Calculated value)
Threshold limit - Algae [1]	10 - 100,Algae
Threshold limit - Algae [2]	84 mg/l (72 h; Scenedesmus subspicatus; Growth rate)

3-Aminopropyltriethoxysilan (919-30-2)	
LC50 - Fish [1]	> 934 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Brachydanio rerio, Semi-static system, Fresh water, Experimental value, GLP)
EC50 - Crustacea [1]	331 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
ErC50 algae	> 1000 mg/l (EU Method C.3, 72 h, Scenedesmus subspicatus, Static system, Fresh water, Experimental value, GLP)
BCF - Fish [1]	3.4 (OECD 305: Bioconcentration: Flow-Through Fish Test, 8 week(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	1.7 (QSAR, 20 °C)

12.2. Persistence and degradability

HIT-RE 500 V4, B	
Persistence and degradability	May cause long-term adverse effects in the environment.

Phenol, styrenated (61788-44-1)	
Biochemical oxygen demand (BOD)	0.000231 g O_2/g substance
Chemical oxygen demand (COD)	0.004827 g O_2/g substance

3-Aminopropyltriethoxysilan (919-30-2)	
Not rapidly degradable	
Persistence and degradability	Not readily biodegradable in water.

12.3. Bioaccumulative potential

HIT-RE 500 V4, B	
Bioaccumulative potential	Not established.

2-methyl-1,5-pentanediamine (15520-10-2)	
Partition coefficient n-octanol/water (Log Pow)	0.27 (Estimated value)
Bioaccumulative potential	Low bioaccumulation potential (Log Kow < 4).

Phenol, styrenated (61788-44-1)	
BCF - Fish [1]	3246 l/kg (BCFBAF v3.01, Pisces, Fresh water, Weight of evidence, Fresh weight)
BCF - Fish [2]	3246 mg/l
Partition coefficient n-octanol/water (Log Pow)	6.24 – 7.77 (Experimental value; OECD 123: Partition Coefficient (1-Octanol/Water): Slow-Stirring Method)

Phenol, styrenated (61788-44-1)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.1 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value)
Bioaccumulative potential	Bioaccumulative potential.

2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)	
Partition coefficient n-octanol/water (Log Pow)	0.77 (Literature; 0.219; Experimental value; Equivalent or similar to OECD 107; 21.5 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.32 (log Koc, Calculated value)
Bioaccumulative potential	Low bioaccumulation potential (Log Kow < 4).

3-Aminopropyltriethoxysilan (919-30-2)	
BCF - Fish [1]	3.4 (OECD 305: Bioconcentration: Flow-Through Fish Test, 8 week(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	1.7 (QSAR, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

HIT-RE 500 V4, B	
Mobility in soil	No additional information available

2-methyl-1,5-pentanediamine (15520-10-2)	
Partition coefficient n-octanol/water (Log Pow)	0.27 (Estimated value)

Phenol, styrenated (61788-44-1)	
Surface tension	48.45 mN/m (20 °C, 90 %, OECD 115: Surface Tension of Aqueous Solutions)
Partition coefficient n-octanol/water (Log Pow)	6.24 – 7.77 (Experimental value; OECD 123: Partition Coefficient (1-Octanol/Water): Slow-Stirring Method)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.1 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value)
Ecology - soil	Low potential for mobility in soil.

2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)	
Surface tension	No data available in the literature
Partition coefficient n-octanol/water (Log Pow)	0.77 (Literature; 0.219; Experimental value; Equivalent or similar to OECD 107; 21.5 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.32 (log Koc, Calculated value)
Ecology - soil	Highly mobile in soil.

3-Aminopropyltriethoxysilan (919-30-2)	
Partition coefficient n-octanol/water (Log Pow)	1.7 (QSAR, 20 °C)
Ecology - soil	No (test)data on mobility of the substance available.

12.5. Other adverse effects

Ozone: Not classified

Other adverse effects: No additional information available

SECTION 13: Disposal considerations

Product/Packaging disposal recommendations	After curing, the product can be disposed of with household waste. Full or only partially emptied cartridges must be disposed of as special waste in accordance with official regulations. Packaging contaminated by the product : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
14.1. UN number or ID number			
UN 3259	UN 3259	UN 3259	UN 3259
14.2. UN proper shipping name			
AMINES, SOLID, CORROSIVE, N.O.S. (2-methyl-1,5-pentanediamine, m-Xylylenediamine)	AMINES, SOLID, CORROSIVE, N.O.S. (2-methyl-1,5-pentanediamine, m-Xylylenediamine)	Amines, solid, corrosive, n.o.s. (2-methyl-1,5-pentanediamine, m-Xylylenediamine)	AMINES, SOLID, CORROSIVE, N.O.S. (2-methyl-1,5-pentanediamine, m-Xylylenediamine)
Transport document description			
UN 3259 AMINES, SOLID, CORROSIVE, N.O.S. (2-methyl-1,5-pentanediamine, m-Xylylenediamine), 8, II, (E)	UN 3259 AMINES, SOLID, CORROSIVE, N.O.S. (2-methyl-1,5-pentanediamine, m-Xylylenediamine), 8, II	UN 3259 Amines, solid, corrosive, n.o.s. (2-methyl-1,5-pentanediamine, m-Xylylenediamine), 8, II	UN 3259 AMINES, SOLID, CORROSIVE, N.O.S. (2-methyl-1,5-pentanediamine, m-Xylylenediamine), 8, II
14.3. Transport hazard class(es)			
8	8	8	8
			
14.4. Packing group			
II	II	II	II
14.5. Environmental hazards			
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available			

14.6. Special precautions for user

Overland transport

Classification code (ADR)	C8
Special provisions (ADR)	274
Limited quantities (ADR)	1kg
Packing instructions (ADR)	P002, IBC08
Mixed packing provisions (ADR)	MP10
Transport category (ADR)	2
Orange plates	

Tunnel restriction code (ADR)	E

Transport by sea

Special provisions (IMDG)	274
Limited quantities (IMDG)	1 kg
Packing instructions (IMDG)	P002
EmS-No. (Fire)	F-A
EmS-No. (Spillage)	S-B
Stowage category (IMDG)	A
MFAG-No	154

Air transport

PCA packing instructions (IATA)	859
PCA max net quantity (IATA)	15kg
CAO packing instructions (IATA)	863
Special provisions (IATA)	A3

Rail transport

Special provisions (RID)	274
Limited quantities (RID)	1kg
Packing instructions (RID)	P002, IBC08

14.7. Maritime 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

Regulation		Component / Mixture
Arms and Explosives Act	Not applicable	
Chemical Weapons Prohibition Act		
Environmental Protection and Management (Air Impurities) Regulations		
Environmental Protection and Management Act (Hazardous Substances)		
Environmental Public Health (Quality of Piped Drinking Water) Regulations		
Fire Safety Act/Fire Safety (Petroleum and Flammable Materials) Regulations		
Maritime and Port Authority of Singapore (Dangerous, Petroleum and Explosives) Regulations		
Misuse of Drugs Act		
Poisons Act		
Poisons Rules		
Hazardous waste (Control of export, import and transit) Act		
Strategic goods (Control) Act		

15.2. International regulations

No additional information available

15.3 Chemical inventory status

No additional information available

SECTION 16: Other information

Issue date	23/04/2025
Revision date	23/04/2025
Abbreviations and acronyms	ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road ATE - Acute Toxicity Estimate BCF - Bioconcentration factor CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008 DMEL - Derived Minimal Effect level DNEL - Derived-No Effect Level IATA - International Air Transport Association EC50 - Median effective concentration IMDG - International Maritime Dangerous Goods LC50 - Median lethal concentration LD50 - Median lethal dose LOAEL - Lowest Observed Adverse Effect Level NOAEC - No-Observed Adverse Effect Concentration NOAEL - No-Observed Adverse Effect Level NOEC - No-Observed Effect Concentration PBT - Persistent Bioaccumulative Toxic PNEC - Predicted No-Effect Concentration REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006 RID - Regulations concerning the International Carriage of Dangerous Goods by Rail SDS - Safety Data Sheet vPvB - Very Persistent and Very Bioaccumulative
Other information	None.

Indication of changes			
Section	**Changed item**	**Change**	**Comments**
15	Regulations Singapore	Modified	

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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.