

# 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 Bahrain W.L.L  
Warehouse No. 23 & 25, Gate 285, Road 4306  
Area 343, Mina Salman  
P.O. Box 11401  
Manama  
T +973 17811675  
[hiltibahrain@hilti.com](mailto:hiltibahrain@hilti.com) - <https://www.hilti-me.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:

#### Classification of the Product

##### Classification according to the United Nations GHS

Acute Tox. 5 (Oral)	H303
Skin Corr. 1B	H314
Eye Dam. 1	H318
Skin Sens. 1	H317
Repr. 1B	H360
STOT SE 3	H335
Aquatic Acute 2	H401
Aquatic Chronic 2	H411

#### Label elements

##### Labelling according to the United Nations GHS

Hazard pictograms (GHS UN)



GHS05



GHS07



GHS08



GHS09

Signal word (GHS UN)

Danger

Hazardous ingredients

Epoxy resin, Amines

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## Safety information for 2-Component-products

### Hazard statements (GHS UN)

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 UN)

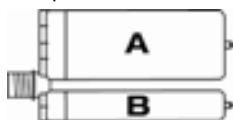
P280 - Wear eye protection, protective clothing, protective gloves.  
P262 - Do not get in eyes, on skin, or on clothing.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P302+P352 - IF ON SKIN: Wash 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	Classification according to the United Nations GHS
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.

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## Safety information for 2-Component-products

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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 the United Nations GHS (Rev. 9, 2021)

Issue date: 24/04/2025 Revision date: 24/04/2025

Supersedes: 13/06/2023

Version: 3.0

### SECTION 1: Identification

#### 1.1. GHS Product identifier

Product form	Mixture
Trade name	HIT-RE 500 V4, A
UN-No. (ADR)	3077
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

Use of the substance/mixture	Composite mortar component for fasteners in the construction industry
Recommended uses and restrictions	Restricted to professional users
Recommended use	For professional use only

#### 1.4. Supplier's details

##### Supplier

Hilti Bahrain W.L.L  
Warehouse No. 23 & 25, Gate 285, Road 4306  
Area 343, Mina Salman  
P.O. Box 11401  
BH Manama, Bahrain  
T +973 17811675  
[hiltibahrain@hilti.com](mailto:hiltibahrain@hilti.com), <https://www.hilti-me.com/>

##### Department issuing data specification sheet

Hilti Entwicklungsgesellschaft mbH  
Hiltistraße 6  
DE 86916 Kaufering  
Deutschland  
T +49 8191 906876  
[product.compliance-anchors@hilti.com](mailto:product.compliance-anchors@hilti.com)

#### 1.5. Emergency phone number

Emergency number	Emergency CONTACT (24-Hour-Number): GBK GmbH Global Regulatory Compliance +49 (0)6132-84463
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### SECTION 2: Hazard identification

#### 2.1. Classification of the substance or mixture

##### Classification according to the United Nations GHS

Skin corrosion/irritation, Category 2	H315	Calculation method
Serious eye damage/eye irritation, Category 1	H318	Calculation method
Skin sensitisation, Category 1	H317	Calculation method
Reproductive toxicity, Category 1B	H360	Calculation method
Hazardous to the aquatic environment – Acute Hazard, Category 2	H401	Calculation method
Hazardous to the aquatic environment – Chronic Hazard, Category 2	H411	Calculation method
Full text of H-statements: see section 16		

#### 2.2. GHS Label elements, including precautionary statements

##### Labelling according to the United Nations GHS

Hazard pictograms (GHS UN)



Signal word (GHS UN)

Danger

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Hazardous ingredients	2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane; Trimethylolethantriglycidylether; butanedioldiglycidyl ether; [3-(2,3-epoxypropoxy)propyl]trimethoxysilane; Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
Hazard statements (GHS UN)	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 (GHS UN)	P262 - Do not get in eyes, on skin, or on clothing. P280 - Wear eye protection, protective clothing, protective gloves. 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, medical attention. P337+P313 - If eye irritation persists: Get medical advice, medical attention. P302+P352 - IF ON SKIN: Wash with plenty of 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	Product identifier	%	Classification according to the United Nations GHS
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane	CAS-No.: 1675-54-3	25 – 40	Flammable liquids Not classified Acute toxicity (oral) Not classified Skin corrosion/irritation, Category 2, H315 Serious eye damage/eye irritation, Category 2A, H319 Skin sensitisation, Category 1, H317 Hazardous to the aquatic environment – Acute Hazard, Category 2, H401 Hazardous to the aquatic environment – Chronic Hazard, Category 2, H411
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	CAS-No.: 9003-36-5	10 – 25	Skin corrosion/irritation, Category 2, H315 Serious eye damage/eye irritation, Category 2A, H319 Skin sensitisation, Category 1, H317 Hazardous to the aquatic environment – Chronic Hazard, Category 2, H411

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Name	Product identifier	%	Classification according to the United Nations GHS
Trimethylolethantriglycidylether	CAS-No.: 68460-21-9	5 – 10	Skin corrosion/irritation, Category 2, H315 Serious eye damage/eye irritation, Category 2A, H319 Skin sensitisation, Category 1, H317 Hazardous to the aquatic environment – Chronic Hazard, Category 3, H412
butanedioldiglycidyl ether	CAS-No.: 2425-79-8	5 – 10	Flammable liquids Not classified Acute toxicity (oral), Category 4, H302 Acute toxicity (dermal), Category 4, H312 Acute toxicity (inhal.), Category 4, H332 Skin corrosion/irritation, Category 2, H315 Serious eye damage/eye irritation, Category 1, H318 Skin sensitisation, Category 1, H317 Reproductive toxicity, Category 1B, H360 Hazardous to the aquatic environment – Acute Hazard, Category 3, H402 Hazardous to the aquatic environment – Chronic Hazard, Category 3, H412
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	CAS-No.: 2530-83-8	2.5 – 5	Flammable liquids Not classified Acute toxicity (oral) Not classified Acute toxicity (dermal), Category 5, H313 Serious eye damage/eye irritation, Category 1, H318 Hazardous to the aquatic environment – Acute Hazard, Category 3, H402 Hazardous to the aquatic environment – Chronic Hazard, Category 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

Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation

Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh air. Allow the victim to rest.

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First-aid measures after skin contact	Gently wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get immediate medical advice/attention.
First-aid measures after 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.
First-aid measures after 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.
Potential adverse human health effects and symptoms	No additional information available.

### 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.
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### 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.
<b>6.1.1. For non-emergency personnel</b>	
Emergency procedures	Evacuate unnecessary personnel.
<b>6.1.2. For emergency responders</b>	
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 materials 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.

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### 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.
Heat and ignition sources	Keep away from heat and direct sunlight.
Storage temperature	5 – 25 °C

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No additional information available

#### 8.2. Appropriate engineering controls

Appropriate engineering controls	No specific measures identified.
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.
Other information	Do not eat, drink or smoke during use.

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

##### Personal protective equipment:

Safety glasses. Gloves. Protective clothing. Avoid all unnecessary exposure.

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)



#### 8.4. Exposure limit values for the other components

No additional information available



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according to the United Nations GHS (Rev. 9, 2021)

### SECTION 9: Physical and chemical properties

#### 9.1. Basic physical and chemical properties

Physical state	Solid
Appearance	Thixotropic paste
Colour	Light grey.
Odour	characteristic.
Odour threshold	Not available
Melting point	Not available
Freezing point	Not available
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	6.6
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	1.45 g/cm <sup>3</sup>
Relative density	Not available
Relative vapour density at 20°C	Not applicable
Solubility	insoluble in water.
Viscosity, dynamic	45 – 59 Pa·s 23 °C
Particle size	Not available

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

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.

# HIT-RE 500 V4, A

## Safety Data Sheet

according to the United Nations GHS (Rev. 9, 2021)

### 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

#### 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)

LD50 oral rat	> 2000 mg/kg (Rat; OECD 420: Acute Oral toxicity – Acute Toxic Class Method; Experimental value)
LD50 oral	11400 mg/kg
LD50 dermal rat	> 2000 mg/kg (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)

#### 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. pH: 6.6
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
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)	Toxic to aquatic life.
Classification procedure (Hazardous to the aquatic environment, short-term (acute))	Calculation method
Hazardous to the aquatic environment, long-term (chronic)	Toxic to aquatic life with long lasting effects.
Classification procedure (Hazardous to the aquatic environment, long-term (chronic))	Calculation method

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<b>2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)</b>	
LC50 - Fish [1]	1.2 mg/l (96 h; Oncorhynchus mykiss; Lethal)
LC50 - Fish [2]	2.3 mg/l (96 h; Oncorhynchus mykiss; Nominal concentration)
EC50 - Crustacea [1]	2 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 72h - Algae [1]	9.4 mg/l (EPA 660/3 - 75/009, Selenastrum capricornutum, Static system, Fresh water, Experimental value, Biomass)
Threshold limit - Algae [1]	> 11 mg/l (72 h; Scenedesmus sp.)
Threshold limit - Algae [2]	4.2 mg/l (72 h; Scenedesmus sp.)

<b>butanedioldiglycidyl ether (2425-79-8)</b>	
LC50 - Fish [1]	24 mg/l (96 h; Pisces) ECHA
LC50 - Other aquatic organisms [1]	> 160 mg/l
NOEC (acute)	40 mg/l
Threshold limit - Algae [1]	88930 mg/l (96 h; Algae)

<b>[3-(2,3-epoxypropoxy)propyl]trimethoxysilane (2530-83-8)</b>	
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)
Threshold limit - Algae [1]	119 mg/l (7 days; Anabaena flosaquae)
Threshold limit - Algae [2]	250 mg/l (72 h; Selenastrum capricornutum)

### 12.2. Persistence and degradability

<b>HIT-RE 500 V4, A</b>	
Persistence and degradability	May cause long-term adverse effects in the environment.
<b>2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)</b>	
Not rapidly degradable	
<b>butanedioldiglycidyl ether (2425-79-8)</b>	
Biochemical oxygen demand (BOD)	0.01982 g O <sub>2</sub> /g substance

### 12.3. Bioaccumulative potential

<b>HIT-RE 500 V4, A</b>	
Bioaccumulative potential	Not established.
<b>2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)</b>	
Partition coefficient n-octanol/water (Log Kow)	≥ 2.918 (Experimental value; EU Method A.8: Partition Coefficient; 25 °C)
Bioaccumulative potential	Low bioaccumulation potential (BCF < 500).
<b>butanedioldiglycidyl ether (2425-79-8)</b>	
Partition coefficient n-octanol/water (Log Kow)	-0.27 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
<b>[3-(2,3-epoxypropoxy)propyl]trimethoxysilane (2530-83-8)</b>	
Partition coefficient n-octanol/water (Log Kow)	-0.92 (Estimated value)

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### 12.4. Mobility in soil

HIT-RE 500 V4, A	
Mobility in soil	No additional information available
2,2'-[[1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)	
Surface tension	59 mN/m (20 °C, 0.09 g/l)
Ecology - soil	No (test)data on mobility of the substance available.
butanedioldiglycidyl ether (2425-79-8)	
Surface tension	44.4 mN/m (20 °C, 90 %, EU Method A.5: Surface tension)
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.

### 12.5. Other adverse effects

Ozone	Not classified
Other adverse effects	No additional information available
Other information	Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Regional waste regulation	Disposal must be done according to official regulations.
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.
Ecological information	Avoid release to the environment.

## 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

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ADR	IMDG	IATA	RID
<b>14.2. UN proper shipping name</b>			
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)
<b>Transport document description</b>			
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
<b>14.3. Transport hazard class(es)</b>			
9	9	9	9
<b>14.4. Packing group</b>			
III	III	III	III
<b>14.5. Environmental hazards</b>			
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

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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

No additional information available

## SECTION 16: Other information

SDS Major/Minor	None
Issue date	4/24/2025
Revision date	4/24/2025
Supersedes	6/13/2023

Section	Changed item	Change	Comments
2.1	Classification (GHS UN)	Added	
1.4	Emergency number	Modified	

### 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



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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  
None.

Other information

Full text of H-statements:	
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Acute Tox. 5 (Dermal)	Acute toxicity (dermal), Category 5
Acute Tox. Not classified (Oral)	Acute toxicity (oral) Not classified
Aquatic Acute 3	Hazardous to the aquatic environment – Acute Hazard, Category 3
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Flam. Liq. Not classified	Flammable liquids Not classified
H302	Harmful if swallowed
H312	Harmful in contact with skin
H313	May be 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
H332	Harmful if inhaled
H360	May damage fertility or the unborn child
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects



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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.



# HIT-RE 500 V4, B

## Safety Data Sheet

according to the United Nations GHS (Rev. 9, 2021)

Issue date: 23/04/2025 Revision date: 23/04/2025

Supersedes: 11/11/2022

Version: 2.1

### SECTION 1: Identification

#### 1.1. GHS Product identifier

Product form	Mixture
Trade name	HIT-RE 500 V4, B
UN-No. (ADR)	3259
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

Use of the substance/mixture	Composite mortar component for fasteners in the construction industry
Recommended use	For professional use only

#### 1.4. Supplier's details

##### Supplier

Hilti Bahrain W.L.L  
Warehouse No. 23 & 25, Gate 285, Road 4306  
Area 343, Mina Salman  
P.O. Box 11401  
BH Manama, Bahrain  
T +973 17811675  
[hiltibahrain@hilti.com](mailto:hiltibahrain@hilti.com), <https://www.hilti-me.com/>

##### Department issuing data specification sheet

Hilti Entwicklungsgesellschaft mbH  
Hiltistraße 6  
DE 86916 Kaufering  
Deutschland  
T +49 8191 906876  
[product.compliance-anchors@hilti.com](mailto:product.compliance-anchors@hilti.com)

#### 1.5. Emergency phone number

Emergency number	Emergency CONTACT (24-Hour-Number): GBK GmbH Global Regulatory Compliance +49 (0)6132-84463
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### SECTION 2: Hazard identification

#### 2.1. Classification of the substance or mixture

##### Classification according to the United Nations GHS

Acute toxicity (oral), Category 5	H303	Calculation method
Skin corrosion/irritation, Category 1B	H314	Expert judgement
Skin sensitisation, Category 1	H317	Calculation method
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	H335	Calculation method
Hazardous to the aquatic environment – Acute Hazard, Category 2	H401	Calculation method
Hazardous to the aquatic environment – Chronic Hazard, Category 3	H412	Calculation method
Full text of H-statements: see section 16		

#### 2.2. GHS Label elements, including precautionary statements

##### Labelling according to the United Nations GHS

Hazard pictograms (GHS UN)



Signal word (GHS UN)

Danger

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Hazardous ingredients	2-methyl-1,5-pentanediamine; Phenol, styrenated; m-Xylylenediamine; 2,4,6-tris(dimethylaminomethyl)phenol ; 3-Aminopropyltriethoxysilan
Hazard statements (GHS UN)	H314 - Causes severe skin burns and eye damage H317 - May cause an allergic skin reaction H335 - May cause respiratory irritation H401 - Toxic to aquatic life H412 - Harmful to aquatic life with long lasting effects
Precautionary statements (GHS UN)	P262 - Do not get in eyes, on skin, or on clothing. P280 - Wear eye protection, protective clothing, protective gloves. 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, medical attention. P337+P313 - If eye irritation persists: Get medical advice, medical attention. P302+P352 - IF ON SKIN: Wash with plenty of 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	Product identifier	%	Classification according to the United Nations GHS
2-methyl-1,5-pentanediamine	CAS-No.: 15520-10-2	25 – 35	Flammable liquids, Category 4, H227 Acute toxicity (oral), Category 4, H302 Acute toxicity (inhalation:dust,mist) Category 4, H332 Skin corrosion/irritation, Category 1, H314 Serious eye damage/eye irritation, Category 1, H318 Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation, H335 Hazardous to the aquatic environment – Acute Hazard Not classified Hazardous to the aquatic environment – Chronic Hazard Not classified

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Name	Product identifier	%	Classification according to the United Nations GHS
Phenol, styrenated	CAS-No.: 61788-44-1	5 – 10	Flammable liquids Not classified Acute toxicity (inhalation:dust,mist) Not classified Skin corrosion/irritation, Category 2, H315 Skin sensitisation, Category 1, H317 Hazardous to the aquatic environment – Acute Hazard, Category 1, H400 Hazardous to the aquatic environment – Chronic Hazard, Category 2, H411
m-Xylylenediamine	CAS-No.: 1477-55-0	4 – <8	Flammable liquids Not classified Acute toxicity (oral), Category 4, H302 Acute toxicity (inhalation:dust,mist) Category 4, H332 Skin corrosion/irritation, Category 1B, H314 Serious eye damage/eye irritation, Category 1, H318 Skin sensitisation, category 1B, H317 Hazardous to the aquatic environment – Acute Hazard, Category 3, H402 Hazardous to the aquatic environment – Chronic Hazard, Category 3, H412
2,4,6-tris(dimethylaminomethyl)phenol	CAS-No.: 90-72-2	1 – 3	Flammable liquids Not classified Acute toxicity (oral), Category 4, H302 Skin corrosion/irritation, Category 2, H315 Serious eye damage/eye irritation, Category 2A, H319 Hazardous to the aquatic environment – Acute Hazard, Category 3, H402 Hazardous to the aquatic environment – Chronic Hazard Not classified

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Name	Product identifier	%	Classification according to the United Nations GHS
3-Aminopropyltriethoxysilan	CAS-No.: 919-30-2	1 – 3	Flammable liquids Not classified Acute toxicity (oral), Category 4, H302 Acute toxicity (dermal), Category 5, H313 Acute toxicity (inhalation:dust,mist) Not classified Skin corrosion/irritation, Category 1B, H314 Skin sensitisation, Category 1, H317 Hazardous to the aquatic environment – Acute Hazard Not classified Hazardous to the aquatic environment – Chronic Hazard Not classified

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	Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
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 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.

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

### 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.
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according to the United Nations GHS (Rev. 9, 2021)

### 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.
<b>6.1.1. For non-emergency personnel</b>	
Emergency procedures	Evacuate unnecessary personnel.
<b>6.1.2. For emergency responders</b>	
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 materials 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.
Heat and ignition sources	Keep away from heat and direct sunlight.
Storage temperature	5 – 25 °C

## 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.
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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.
Other information	Do not eat, drink or smoke during use.

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

#### Personal protective equipment:

Safety glasses. Gloves. Protective clothing. Avoid all unnecessary exposure.

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)



### 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	Thixotropic paste
Colour	red.
Odour	Amine-like.
Odour threshold	Not available
Melting point	Not available
Freezing point	Not available
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 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	1.31 g/cm³
Relative density	Not available
Relative vapour density at 20°C	Not applicable



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Solubility	insoluble in water.
Viscosity, dynamic	50 – 70 Pa·s HN-0333
Particle size	Not available

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

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. Information on toxicological effects

Acute toxicity (oral)	May be harmful if swallowed.
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified

HIT-RE 500 V4, B	
ATE UN (oral)	2842.757 mg/kg bodyweight
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

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<b>2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)</b>	
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)
<b>3-Aminopropyltriethoxysilan (919-30-2)</b>	
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.
<b>2-methyl-1,5-pentanediamine (15520-10-2)</b>	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	Not classified
Aspiration hazard	Not classified
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)	Toxic to aquatic life.
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

<b>2-methyl-1,5-pentanediamine (15520-10-2)</b>	
LC50 - Fish [1]	130 mg/l (LC50; 48 h)
LOEC (acute)	1800 mg/l
NOEC (acute)	1000 mg/l
<b>Phenol, styrenated (61788-44-1)</b>	
LC50 - Fish [1]	5.6 mg/l
LC50 - Other aquatic organisms [1]	9.7 mg/l
EC50 - Crustacea [1]	1.44 mg/l



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Phenol, styrenated (61788-44-1)	
NOEC (acute)	3.2 mg/l
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)
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)
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)

### 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 <sub>2</sub> /g substance
Chemical oxygen demand (COD)	0.004827 g O <sub>2</sub> /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.

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2-methyl-1,5-pentanediamine (15520-10-2)	
Partition coefficient n-octanol/water (Log Kow)	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 Kow)	6.24 – 7.77 (Experimental value; OECD 123: Partition Coefficient (1-Octanol/Water): Slow-Stirring Method)
Bioaccumulative potential	Bioaccumulative potential.

2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)	
Partition coefficient n-octanol/water (Log Kow)	0.77 (Literature; 0.219; Experimental value; Equivalent or similar to OECD 107; 21.5 °C)
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 Kow)	1.7 (QSAR, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

### 12.4. Mobility in soil

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Mobility in soil	No additional information available

Phenol, styrenated (61788-44-1)	
Surface tension	48.45 mN/m (20 °C, 90 %, OECD 115: Surface Tension of Aqueous Solutions)
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
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.32 (log Koc, Calculated value)
Ecology - soil	Highly mobile in soil.

3-Aminopropyltriethoxysilan (919-30-2)	
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
Other information	Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Regional waste regulation	Disposal must be done according to official regulations.
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### 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.

### Ecological information

Avoid release to the environment.

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
<b>14.1. UN number or ID number</b>			
UN 3259	UN 3259	UN 3259	UN 3259
<b>14.2. UN proper shipping name</b>			
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)
<b>Transport document description</b>			
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
<b>14.3. Transport hazard class(es)</b>			
8	8	8	8
<b>14.4. Packing group</b>			
II	II	II	II
<b>14.5. Environmental hazards</b>			
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



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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**

No additional information available

**SECTION 16: Other information**

SDS Major/Minor	None
Issue date	4/23/2025
Revision date	4/23/2025
Supersedes	11/11/2022

Section	Changed item	Change	Comments
1.4	Emergency number	Modified	

**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

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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  
 None.

Other information

Full text of H-statements:	
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Acute Tox. 5 (Dermal)	Acute toxicity (dermal), Category 5
Acute Tox. Not classified (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Not classified
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Acute 3	Hazardous to the aquatic environment – Acute Hazard, Category 3
Aquatic Acute Not classified	Hazardous to the aquatic environment – Acute Hazard Not classified
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Aquatic Chronic Not classified	Hazardous to the aquatic environment – Chronic Hazard Not classified
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Flam. Liq. 4	Flammable liquids, Category 4
Flam. Liq. Not classified	Flammable liquids Not classified
Skin Corr. 1	Skin corrosion/irritation, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1B	Skin sensitisation, category 1B
H227	Combustible liquid
H302	Harmful if swallowed
H303	May be harmful if swallowed
H313	May be 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



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Full text of H-statements:	
H332	Harmful if inhaled
H335	May cause respiratory irritation
H400	Very toxic to aquatic life
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

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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.