

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 (Switzerland) Ltd.

Kalchbühlstrasse 22

8038 Zurich - Switzerland

T +41 844 84 84 85 - F +41 844 84 84 86

info@hilti.ch

SECTION 2: General information

Restrictions on use

Restricted to professional users

Storage

Storage temperature : 5 - 25 °C

Switzerland

Swiss CPID No

777401-66

VOCV (Swiss)

0 %

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

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin Corr. 1B H314

Eye Dam. 1 H318

Skin Sens. 1 H317

Repr. 1B H360

STOT SE 3 H335

Aquatic Chronic 2 H411

Full text of H- and EUH-statements: see section 16

Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

HIT-RE 500 V4

Kit Safety Information Sheet (SIS)

Hazard pictograms (CLP)



Signal word (CLP)

Hazardous ingredients

Hazard statements (CLP)

Precautionary statements (CLP)

Extra phrases

Danger

Epoxy resin, Amines

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.

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.

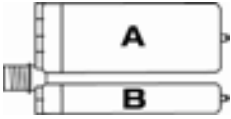
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

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 Regulation (EC) No. 1272/2008 [CLP]
HIT-RE 500 V4, A		1	pcs (pieces)	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Repr. 1B, H360 Aquatic Chronic 2, H411
HIT-RE 500 V4, B		1	pcs (pieces)	Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Chronic 3, H412

SECTION 4: General information

General advice

For professional users only

SECTION 5: Safe handling advice

General measures

Environmental precautions

Storage conditions

Technical measures

Precautions for safe handling

Spilled material may present a slipping hazard

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

Protect from sunlight. Store in a well-ventilated place.

Comply with applicable regulations

Wear personal protective equipment

HIT-RE 500 V4

Kit Safety Information Sheet (SIS)

Methods for cleaning up	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 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.
Other medical advice or treatment	Treat symptomatically

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 Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Issue date: 24/04/2025

Revision date: 24/04/2025

Supersedes version of: 13/06/2023

Version: 3.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form	Mixture
Trade name	HIT-RE 500 V4, A
UFI	MSTT-F08S-F810-SP4W
Swiss CPID No	777387-11
Product code	BU Anchor

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

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

1.2.2. Uses advised against

Restrictions on use	Restricted to professional users
---------------------	----------------------------------

1.3. Details of the supplier of the safety data sheet

Supplier

Hilti (Switzerland) Ltd.
Kalchbühlstrasse 22
CH 8038 Zurich
Switzerland
T +41 844 84 84 85, F +41 844 84 84 86
info@hilti.ch

Department issuing data specification sheet

Hilti Entwicklungsgesellschaft mbH
Hiltistraße 6
DE 86916 Kaufering
Deutschland
T +49 8191 906876
product.compliance-anchors@hilti.com

1.4. Emergency telephone number

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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

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 – Chronic Hazard, Category 2	H411
Full text of H- and EUH-statements: see section 16	

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



HIT-RE 500 V4, A

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

	GHS05	GHS07	GHS08	GHS09
Signal word (CLP)	Danger			
Contains	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 (CLP)	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 (CLP)	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.			

2.3. Other hazards

Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

Component	
2,2'-[[1-methylethylidene]bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Trimethylolethantriglycidylether (68460-21-9)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
butanedioldiglycidyl ether (2425-79-8)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane (2530-83-8)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

Component	
2,2'-[[1-methylethylidene]bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605
Trimethylolethantriglycidylether (68460-21-9)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

HIT-RE 500 V4, A

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Component	
butanedioldiglycidyl ether (2425-79-8)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane (2530-83-8)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	Conc.	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane	CAS-No.: 1675-54-3 EC-No.: 216-823-5 REACH-no: 01-2119456619-26	25 – 40	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	REACH-no: 01-2119454392-40	10 – 25	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411
Trimethylolethantriglycidylether	CAS-No.: 68460-21-9	5 – 10	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 3, H412
butanedioldiglycidyl ether	CAS-No.: 2425-79-8 EC-No.: 219-371-7 EC Index-No.: 603-072-00-7 REACH-no: 01-2119494060-45	5 – 10	Acute Tox. 4 (Oral), H302 (ATE=1163 mg/kg bodyweight) Acute Tox. 4 (Dermal), H312 (ATE=1130 mg/kg bodyweight) Acute Tox. 4 (Inhalation), H332 (ATE=1.5 mg/l/4h) Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Repr. 1B, H360F Aquatic Chronic 3, H412
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	CAS-No.: 2530-83-8 EC-No.: 219-784-2 REACH-no: 01-2119513212-58	2.5 – 5	Eye Dam. 1, H318 Aquatic Chronic 3, H412

HIT-RE 500 V4, A

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Specific concentration limits:		
Name	Product identifier	Specific concentration limits
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane	CAS-No.: 1675-54-3 EC-No.: 216-823-5 REACH-no: 01-2119456619-26	(5 ≤ C ≤ 100) Skin Irrit. 2, H315 (5 ≤ C ≤ 100) Eye Irrit. 2, H319

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of 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.
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 and effects, both 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 any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. 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. Special hazards arising from the substance or mixture

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

5.3. Advice for firefighters

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.
----------------------	---------------------------------

HIT-RE 500 V4, A

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

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.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

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.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

HIT-RE 500 V4, A

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

No specific measures identified.

8.2.2. Personal protection equipment

Personal protective equipment:

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

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Wear security glasses which protect from splashes

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

8.2.2.2. Skin protection

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

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

Other skin protection

Materials for protective clothing:

Long sleeved protective clothing

8.2.2.3. Respiratory protection

No additional information available

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

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.

No additional information available

HIT-RE 500 V4, A

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Colour	Light grey.
Appearance	Thixotropic paste.
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	Not applicable
Viscosity, dynamic	45 – 59 Pa·s 23 °C
Solubility	insoluble in water.
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 ³
Relative density	Not available
Relative vapour density at 20°C	Not applicable
Particle size	Not available
Particle size distribution	Not available
Particle shape	Not available
Particle aspect ratio	Not available
Particle specific surface area	Not available
Particle dustiness	Not available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

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.

HIT-RE 500 V4, A

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

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. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	Not classified
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified
Additional information	Based on available data, the classification criteria are not met

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

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
Additional information	Based on available data, the classification criteria are not met

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

IARC group	3 - Not classifiable
Reproductive toxicity	May damage fertility or the unborn child.
STOT-single exposure	Not classified
Additional information	Based on available data, the classification criteria are not met

HIT-RE 500 V4, A

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

STOT-repeated exposure	Not classified
Additional information	Based on available data, the classification criteria are not met
Aspiration hazard	Not classified
Additional information	Based on available data, the classification criteria are not met

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

11.2.2. Other information

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.

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

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.)

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
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)
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

HIT-RE 500 V4, A

Persistence and degradability	May cause long-term adverse effects in the environment.
-------------------------------	---

HIT-RE 500 V4, A

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

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.

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)	
Partition coefficient n-octanol/water (Log Pow)	≥ 2.918 (Experimental value; EU Method A.8: Partition Coefficient; 25 °C)
Bioaccumulative potential	Low bioaccumulation potential (BCF < 500).

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)

[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

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. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Additional information Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment 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.

HIT-RE 500 V4, A

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

European List of Waste (LoW, EC 2000/532) 08 04 09* - waste adhesives and sealants containing organic solvents or other dangerous substances
20 01 27* - paint, inks, adhesives and resins containing dangerous substances

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
14.3. Transport hazard class(es)			
9	9	9	9
14.4. Packing group			
III	III	III	III

HIT-RE 500 V4, A

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

ADR	IMDG	IATA	RID
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	90 3077

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

HIT-RE 500 V4, A

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Explosives Precursors Regulation (EU 2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (EC 273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

Switzerland

Storage class (LK)	LK 6.1 - Toxic materials
Chemicals Ordinance (ChemO, SR 813.11)	Group 1
Swiss CPID No	777387-11
VOCV (Swiss)	0 %

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes			
Section	Changed item	Change	Comments
1.4	Emergency number	Modified	
2.1	Classification	Added	

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



HIT-RE 500 V4, A

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Full text of H- and EUH-statements:	
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H360	May damage fertility or the unborn child.
H360F	May damage fertility.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Repr. 1B	Reproductive toxicity, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Skin Irrit. 2	H315	Calculation method
Eye Dam. 1	H318	Calculation method
Skin Sens. 1	H317	Calculation method
Repr. 1B	H360	Calculation method
Aquatic Chronic 2	H411	Calculation method

SDS_EU_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 Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Issue date: 23/04/2025

Revision date: 23/04/2025

Supersedes version of: 11/11/2022

Version: 2.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form	Mixture
Trade name	HIT-RE 500 V4, B
UFI	E93U-J0M2-S810-8FU9
Swiss CPID No	777402-63
Product code	BU Anchor

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

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

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier

Hilti (Switzerland) Ltd.
Kalchbühlstrasse 22
CH 8038 Zurich
Switzerland
T +41 844 84 84 85, F +41 844 84 84 86
info@hilti.ch

Department issuing data specification sheet

Hilti Entwicklungsgesellschaft mbH
Hiltistraße 6
DE 86916 Kaufering
Deutschland
T +49 8191 906876
product.compliance-anchors@hilti.com

1.4. Emergency telephone number

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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin corrosion/irritation, Category 1, Sub-Category 1B	H314
Serious eye damage/eye irritation, Category 1	H318
Skin sensitisation, Category 1	H317
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	H335
Hazardous to the aquatic environment – Chronic Hazard, Category 3	H412
Full text of H- and EUH-statements: see section 16	

Adverse physicochemical, human health and environmental effects

No additional information available

HIT-RE 500 V4, B

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS05

GHS07

Signal word (CLP)

Danger

Contains

2-methyl-1,5-pentanediamine; Phenol, styrenated; m-Xylylenediamine; 3-Aminopropyltriethoxysilan

Hazard statements (CLP)

H314 - Causes severe skin burns and eye damage.

H317 - May cause an allergic skin reaction.

H335 - May cause respiratory irritation.

H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (CLP)

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.

2.3. Other hazards

Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

Component	
2-methyl-1,5-pentanediamine (15520-10-2)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Phenol, styrenated (61788-44-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
m-Xylylenediamine (1477-55-0)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
3-Aminopropyltriethoxysilan (919-30-2)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The mixture contains substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

Component	
2-methyl-1,5-pentanediamine (15520-10-2)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605
Phenol, styrenated (61788-44-1)	The substance is included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

HIT-RE 500 V4, B

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Component	
m-Xylylenediamine (1477-55-0)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605
2,4,6-tris(dimethylaminomethyl)phenol (90-72-2)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605
3-Aminopropyltriethoxysilan (919-30-2)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	Conc.	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2-methyl-1,5-pentanediamine	CAS-No.: 15520-10-2 EC-No.: 239-556-6 REACH-no: 01-2119976310-41	25 – 35	Acute Tox. 4 (Oral), H302 (ATE=1170 mg/kg bodyweight) Acute Tox. 4 (Dermal), H312 (ATE=1100 mg/kg bodyweight) Acute Tox. 4 (Inhalation:dust,mist), H332 (ATE=4.9 mg/l/4h) Skin Corr. 1A, H314 Eye Dam. 1, H318 STOT SE 3, H335
Phenol, styrenated Stoff, der endokrinschädliche Eigenschaften aufweist	CAS-No.: 61788-44-1 EC-No.: 262-975-0 REACH-no: 01-2119979575-18	5 – 10	Skin Irrit. 2, H315 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 2, H411
m-Xylylenediamine Stoff mit nationalem Arbeitsplatzgrenzwert (CH)	CAS-No.: 1477-55-0 EC-No.: 216-032-5 REACH-no: 01-2119480150-50	4 – <8	Acute Tox. 4 (Oral), H302 (ATE=930 mg/kg bodyweight) Acute Tox. 4 (Inhalation:dust,mist), H332 (ATE=1.34 mg/l/4h) Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1B, H317 Aquatic Chronic 3, H412 EUH071
2,4,6-tris(dimethylaminomethyl)phenol	CAS-No.: 90-72-2 EC-No.: 202-013-9 EC Index-No.: 603-069-00-0 REACH-no: 01-2119560597-27	1 – 3	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Skin Irrit. 2, H315 Eye Irrit. 2, H319

HIT-RE 500 V4, B

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Name	Product identifier	Conc.	Classification according to Regulation (EC) No. 1272/2008 [CLP]
3-Aminopropyltriethoxysilan	CAS-No.: 919-30-2 EC-No.: 213-048-4 EC Index-No.: 612-108-00-0 REACH-no: 01-2119480479-24	1 – 3	Acute Tox. 4 (Oral), H302 (ATE=1491.5 mg/kg bodyweight) Skin Corr. 1B, H314 Skin Sens. 1, H317

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of 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 and effects, both 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 any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. 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. Special hazards arising from the substance or mixture

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

5.3. Advice for firefighters

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.
----------------------	---------------------------------

HIT-RE 500 V4, B

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

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.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

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.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additional information	The product has a pasty consistency. Exposure limit values for respirable dusts are not relevant for this product.
------------------------	--

8.1.1. National occupational exposure and biological limit values

HIT-RE 500 V4, B	
Switzerland - Occupational Exposure Limits	
Local name	m-Xylène- α,α' -diamine / m-XyloI- α,α' -diamin
MAK (OEL TWA)	0.1 mg/m ³
Critical toxicity	TGI, Peau, Yeux / GIT, Haut, Auge

HIT-RE 500 V4, B

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

HIT-RE 500 V4, B	
Notation	R, S / H, S
Regulatory reference	www.suva.ch, 01.01.2023
m-Xylylenediamine (1477-55-0)	
Switzerland - Occupational Exposure Limits	
Local name	m-Xylène-α,α'-diamine / m-XyloI-α,α'-diamin
MAK (OEL TWA)	0.1 mg/m³
Notation	R, S / H, S
Regulatory reference	www.suva.ch, 01.01.2025

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:

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

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Wear security glasses which protect from splashes

8.2.2.2. Skin protection

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

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

HIT-RE 500 V4, B

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Other skin protection

Materials for protective clothing:

Long sleeved protective clothing

8.2.2.3. Respiratory protection

No additional information available

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

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.

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Colour	red.
Appearance	Thixotropic paste.
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	Not applicable
Viscosity, dynamic	50 – 70 Pa·s HN-0333
Solubility	insoluble in water.
Partition coefficient n-octanol/water (Log Kow)	Not available
Vapour pressure	Not available
Vapour pressure at 50°C	Not available
Density	1.31 g/cm ³
Relative density	Not available
Relative vapour density at 20°C	Not applicable
Particle size	Not available
Particle size distribution	Not available
Particle shape	Not available
Particle aspect ratio	Not available
Particle specific surface area	Not available
Particle dustiness	Not available

HIT-RE 500 V4, B

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

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 hazard classes as defined in Regulation (EC) No 1272/2008

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

HIT-RE 500 V4, B

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

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	Causes serious eye damage.
Respiratory or skin sensitisation	May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified
Additional information	Based on available data, the classification criteria are not met
Carcinogenicity	Not classified
Additional information	Based on available data, the classification criteria are not met
Reproductive toxicity	Not classified
Additional information	Based on available data, the classification criteria are not met
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
Additional information	Based on available data, the classification criteria are not met
Aspiration hazard	Not classified
Additional information	Based on available data, the classification criteria are not met

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Component	
Phenol, styrenated (61788-44-1)	The substance is identified for having endocrine disrupting properties but there is no additional data available (see section 2.3)

11.2.2. Other information

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

HIT-RE 500 V4, B

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Hazardous to the aquatic environment, long-term (chronic)

Harmful to aquatic life with long lasting effects.

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
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
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)

HIT-RE 500 V4, B

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

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)	
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)
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)
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

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

HIT-RE 500 V4, B

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

ADR	IMDG	IATA	RID
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

HIT-RE 500 V4, B

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)

Reference code	Applicable on
3(b)	2-methyl-1,5-pentanediamine ; Phenol, styrenated ; m-Xylylenediamine ; 3-Aminopropyltriethoxysilan ; 2,4,6-tris(dimethylaminomethyl)phenol
3(c)	Phenol, styrenated ; m-Xylylenediamine

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Explosives Precursors Regulation (EU 2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (EC 273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

Switzerland

Storage class (LK)	LK 8 - Corrosive materials
Swiss CPID No	777402-63
VOCV (Swiss)	0 %

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

HIT-RE 500 V4, B

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Full text of H- and EUH-statements:	
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
EUH071	Corrosive to the respiratory tract.
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1A	Skin sensitisation, category 1A
Skin Sens. 1B	Skin sensitisation, category 1B
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Skin Corr. 1B	H314	Expert judgement
Eye Dam. 1	H318	Calculation method
Skin Sens. 1	H317	Calculation method
STOT SE 3	H335	Calculation method
Aquatic Chronic 3	H412	Calculation method

SDS_EU_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.