

HIT-RE 500 330/1, HIT-RE 500 500/1, HIT-RE 500 1400/1

Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

Date of issue: 03/08/2018

Version: 9.2

Revision date: 03/08/2018

Supersedes: 20/10/2017

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

1.1. Product identifier

Product name	HIT-RE 500
UN-No. (ADR)	3259
Product code	BU Anchor



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

Use of the substance/mixture	Composite mortar component for fasteners in the construction industry
------------------------------	---

1.3. Details of the supplier of the safety data sheet

Hilti Emirates L.L.C.
Dubai Investment Park
P.O. Box 11051
Dubai - United Arab Emirates
T +971 800 44584 - F +971 4 885 4405
ae.contactus@hilti.com - www.hilti.ae

Supplier

Hilti Emirates L.L.C.
Dubai Investment Park
P.O. Box 11051
Dubai - United Arab Emirates
T +971 800 44584 - F +971 4 885 4405
ae.contactus@hilti.com - www.hilti.ae

1.4. Emergency telephone number

Emergency number	Schweizerisches Toxikologisches Informationszentrum – 24h Service +41 44 251 51 51 (international) +971 4 8019694 800-Hilti (44584) (Toll free)
------------------	--

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to the United Nations GHS (Rev. 4, 2011)

Skin Corr. 1A	H314
Skin Sens. 1	H317
Repr. 1B	H360
Aquatic Acute 2	H401
Aquatic Chronic 2	H411
Full text of H statements : see section 16	

HIT-RE 500 330/1, HIT-RE 500 500/1, HIT-RE 500 1400/1

Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

2.2. Label elements

Labelling according to the United Nations GHS (Rev. 4, 2011)

Hazard pictograms (GHS-UN)



GHS05

GHS07

GHS08

GHS09

Signal word (GHS-UN)

Danger

Hazard statements (GHS-UN)

H314 - Causes severe skin burns and eye damage.
 H317 - May cause an allergic skin reaction.
 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

No additional information available

SECTION 3: Composition/information on ingredients

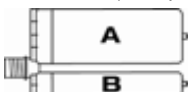
3.1. Substances

Not applicable

3.2. Mixtures

Comments (on top of composition)

Component A: Epoxy resin, Reactive diluent, inorganic filler
 Component B: Amine hardener, inorganic filler



A			
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 - 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 — 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 - 5	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
Reaction products of hexane-1,6-diol with 2-(chloromethyl)	(CAS-No.) 933999-84-9	10 - 5	Acute toxicity (oral), Category 5, H303 Skin corrosion/irritation, Category 2, H315 Serious eye damage/eye irritation, Category 2A, H319 Skin sensitisation, Category 1, H317

HIT-RE 500 330/1, HIT-RE 500 500/1, HIT-RE 500 1400/1

Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

			Hazardous to the aquatic environment — Acute Hazard, Category 3, H402 Hazardous to the aquatic environment — Chronic Hazard, Category 3, H412
1,3 Propanediol, 2 ethyl-2-(hydroxymethyl)-, polymer with 2-(chloromethyl)oxirane	(CAS-No.) 30499-70-8	5 - 2.5	Skin corrosion/irritation, Category 1C, H314 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
B			
Name	Product identifier	%	Classification according to the United Nations GHS
m-Xylylenediamine	(CAS-No.) 1477-55-0	10 - 5	Acute toxicity (oral), Category 4, H302 Acute toxicity (dermal), Category 4, H312 Acute toxicity (inhalation:dust,mist) Category 4, H332 Skin corrosion/irritation, Category 1B, H314 Skin sensitisation, Category 1, H317 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 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	Drink plenty of water. 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 inhalation	May cause an allergic skin reaction.
Symptoms/effects after eye contact	Causes serious eye damage.
Potential adverse human health effects and symptoms	Based on available data, the classification criteria are not met.

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.

HIT-RE 500 330/1, HIT-RE 500 500/1, HIT-RE 500 1400/1

Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

5.2. Special hazards arising from the substance or mixture

No additional information available

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.

6.1.2. For emergency responders

Protective equipment 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.

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 Wash hands, forearms and face thoroughly after handling. 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.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

HIT-RE 500 330/1, HIT-RE 500 500/1, HIT-RE 500 1400/1

Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

8.2. Appropriate engineering controls

Environmental exposure controls Avoid release to the environment.
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)

Hand protection Wear protective gloves.

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	> 0,4		EN 374

Eye protection Chemical goggles or safety glasses

Type	Use	Characteristics	Standard
Safety glasses	Droplet	clear	EN 166, EN 170

Skin and body protection Wear suitable protective clothing

Respiratory protection Wear appropriate mask



8.4. Exposure limit values for the other components

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	Thixotropic paste.
Colour	component A: grey, component B: red
Odour	component A: characteristic, component B: amine-like.
Odour threshold	No data available
pH	11.5 (B)
Relative evaporation rate (butylacetate=1)	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Flammability (solid, gas)	Non flammable.
Vapour pressure	No data available
Relative vapour density at 20 °C	No data available
Relative density	No data available
Solubility	No data available
Log Pow	No data available
Viscosity, kinematic	No data available

HIT-RE 500 330/1, HIT-RE 500 500/1, HIT-RE 500 1400/1

Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

Viscosity, dynamic	No data available
Explosive properties	No data available
Oxidising properties	No data available
Explosive limits	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

Not established.

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

fume. Carbon monoxide. Carbon dioxide.

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 dermal rat	> 2000 mg/kg (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)
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)
Reaction products of hexane-1,6-diol with 2-(chloromethyl) (933999-84-9)	
LD50 oral rat	3010 mg/kg
LD50 dermal rat	> 2000 mg/kg
Formaldehyde, telomer with 1,3-benzenedimethanamine, 1,3-benzenediol and ethenylbenzene (710292-85-6)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg
m-Xylylenediamine (1477-55-0)	
LD50 oral rat	1090 mg/kg
LD50 oral	660 mg/kg
LD50 dermal rat	> 3100 mg/kg
LD50 dermal	2000 mg/kg

HIT-RE 500 330/1, HIT-RE 500 500/1, HIT-RE 500 1400/1

Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

LC50 inhalation rat (Dust/Mist - mg/l/4h)	1.34 mg/l/4h
Skin corrosion/irritation	Causes severe skin burns and eye damage.
Serious eye damage/irritation	Serious eye damage, category 1, implicit
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	Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water	Very toxic to aquatic life.
Acute aquatic toxicity	Toxic to aquatic life.
Chronic aquatic toxicity	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)
EC50 Daphnia 1	1.7 mg/l
LC50 fish 2	2.3 mg/l (96 h; Oncorhynchus mykiss; Nominal concentration)
ErC50 (algae)	> 11 mg/l (EPA 660/3 - 75/009, 72 h, Scenedesmus sp., Static system, Fresh water, Experimental value)
Threshold limit algae 1	> 11 mg/l (72 h; Scenedesmus sp.)
Threshold limit algae 2	4.2 mg/l (72 h; Scenedesmus sp.)

Reaction products of hexane-1,6-diol with 2-(chloromethyl) (933999-84-9)	
LC50 fish 1	30 mg/l
LC50 other aquatic organisms 1	23.1 mg/l
EC50 Daphnia 1	47 mg/l
NOEC (acute)	18 mg/l

Formaldehyde, telomer with 1,3-benzenedimethanamine, 1,3-benzenediol and ethenylbenzene (710292-85-6)	
LC50 fish 1	>= 50 mg/l
LC50 other aquatic organisms 1	>= 31.8 mg/l
EC50 Daphnia 1	2.4 mg/l
NOEC chronic algae	6.25 mg/l

m-Xylylenediamine (1477-55-0)	
LC50 fish 1	75 mg/l
LC50 other aquatic organisms 1	20.3 ppb
EC50 Daphnia 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

12.2. Persistence and degradability

HIT-RE 500	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

HIT-RE 500	
Bioaccumulative potential	Not established.

HIT-RE 500 330/1, HIT-RE 500 500/1, HIT-RE 500 1400/1

Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)	
BCF other aquatic organisms 1	31 (Estimated value, Fresh weight)
Log Pow	>= 2.918 (Experimental value; EU Method A.8: Partition Coefficient; 25 °C)
Bioaccumulative potential	Low bioaccumulation potential (BCF < 500).
Formaldehyde, telomer with 1,3-benzenedimethanamine, 1,3-benzenediol and ethenylbenzene (710292-85-6)	
Bioconcentration factor (BCF REACH)	>= 12.9
Log Pow	5.14

12.4. Mobility in soil

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)	
Surface tension	58.7 - 58.9 mN/m (20 °C, EU Method A.5: Surface tension)
Log Pow	See section 12.1 on ecotoxicology
Log Koc	See section 12.1 on ecotoxicology
Ecology - soil	Low potential for adsorption in soil.
Formaldehyde, telomer with 1,3-benzenedimethanamine, 1,3-benzenediol and ethenylbenzene (710292-85-6)	
Log Pow	See section 12.1 on ecotoxicology

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. Waste treatment methods

Product/Packaging disposal recommendations	Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
Ecology - waste materials	Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	RID
14.1. UN number			
3259	3259	3259	3259
14.2. UN proper shipping name			
AMINES, SOLID, CORROSIVE, N.O.S. (m-Xylylenediamine)	AMINES, SOLID, CORROSIVE, N.O.S. (m-Xylylenediamine)	Amines, solid, corrosive, n.o.s. (m-Xylylenediamine)	AMINES, SOLID, CORROSIVE, N.O.S. (m-Xylylenediamine)
Transport document description			
UN 3259 AMINES, SOLID, CORROSIVE, N.O.S. (m-Xylylenediamine), 8, II, (E)	UN 3259 AMINES, SOLID, CORROSIVE, N.O.S. (m-Xylylenediamine), 8, II	UN 3259 Amines, solid, corrosive, n.o.s. (m-Xylylenediamine), 8, II	UN 3259 AMINES, SOLID, CORROSIVE, N.O.S. (m-Xylylenediamine), 8, II
14.3. Transport hazard class(es)			
8	8	8	8

HIT-RE 500 330/1, HIT-RE 500 500/1, HIT-RE 500 1400/1

Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

ADR	IMDG	IATA	RID
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
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
Carriage prohibited (RID)	No

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: Regulatory information

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

No additional information available

HIT-RE 500 330/1, HIT-RE 500 500/1, HIT-RE 500 1400/1

Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

SECTION 16: Other information

Date of issue 03/08/2018
Revision date 03/08/2018
Supersedes 20/10/2017

Indication of changes:

Section	Changed item	Change	Comments
3	Composition/information on ingredients	Modified	

Other information None.

Full text of H-statements:

H302	Harmful if swallowed.
H303	May be 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.
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.

SDS_UN_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