

HIT-RE 500

Safety information for 2-Component-products

Date of issue: 31/05/2019

Revision date: 31/05/2019

Supersedes: 19/09/2018

Version: 10.0

SECTION 1: Kit identification

1.1 Product identifier

Product name

HIT-RE 500



Product code

BU Anchor

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

Hilti, Inc.
Legacy Tower, Suite 1000
7250 Dallas Parkway
TX 75024 Plano - USA
T +1 9724035800
1-800-879-8000 toll free - F +1 918 254 0522

SECTION 2: General information

Storage

Storage temperature : 5 - 25 °C

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

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

SECTION 3: Kit contents

Classification of the Product

GHS-US classification

Skin Corr. 1A	H314 - Causes severe skin burns and eye damage.
Eye Dam. 1	H318 - Causes serious eye damage.
Skin Sens. 1	H317 - May cause an allergic skin reaction.
Muta. 2	H341 - Suspected of causing genetic defects (oral).
Repr. 1B	H360 - May damage fertility. (oral).
Aquatic Acute 2	H401 - Toxic to aquatic life
Aquatic Chronic 2	H411 - Toxic to aquatic life with long lasting effects.

Label elements

GHS US labelling

Hazard pictograms (GHS US)



GHS05



GHS07



GHS08



GHS09

Signal word (GHS US)

Danger

Hazardous ingredients

Epoxy resin, Amines

Hazard statements (GHS US)

Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
Causes serious eye damage.
Suspected of causing genetic defects (oral).

HIT-RE 500

Safety information for 2-Component-products

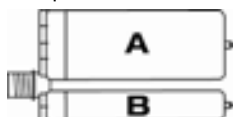
Precautionary statements (GHS US)	May damage fertility. (oral).
	Toxic to aquatic life
	Toxic to aquatic life with long lasting effects.
	Wear eye protection, protective clothing, protective gloves.
	Do not get in eyes, on skin, or on clothing.
	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	If skin irritation or rash occurs: Get medical advice/attention.
	If eye irritation persists: Get medical advice/attention.
	If on skin: Wash with plenty of water

Additional information

2-component-foilpack, contains:

Component A: Epoxy resin, Reactive diluent, inorganic filler

Component B: Amine hardener, inorganic filler



Name	General description	Quantity	Unit	GHS-US classification
HIT-RE 500, A		1	pcs (pieces)	Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Muta. 2, H341 Repr. 1B, H360 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
HIT-RE 500, B		1	pcs (pieces)	Skin Corr. 1A, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 3, H402 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.

HIT-RE 500

Safety information for 2-Component-products

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

Drink plenty of water

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 inhalation

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, B

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 05/31/2019

Revision date: 09/19/2018

Supersedes: 10/17/2017

Version: 8.5

SECTION 1: Identification

1.1. Identification

Product form	Mixture
Product name	HIT-RE 500, B
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
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1.3. Details of the supplier of the safety data sheet

Supplier Hilti, Inc. Legacy Tower, Suite 1000 7250 Dallas Parkway TX 75024 Plano - USA T +1 9724035800 1-800-879-8000 toll free - F +1 918 254 0522	Department issuing data specification sheet Hilti Entwicklungsgesellschaft mbH Hiltistraße 6 86916 Kaufering - Deutschland T +49 8191 906876 anchor.hse@hilti.com
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1.4. Emergency telephone number

Emergency number	Chem-Trec Tel.: 1 800 424 9300 (USA, PR, Virgin Islands, Canada) Tel.: 703 527 3887 (Other countries) +1 918 8723000 1-800-879-8000 toll free
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Skin Corr. 1A	H314 - Causes severe skin burns and eye damage.
Eye Dam. 1	H318 - Causes serious eye damage.
Skin Sens. 1	H317 - May cause an allergic skin reaction.
Aquatic Acute 3	H402 - Harmful to aquatic life
Aquatic Chronic 3	H412 - Harmful to aquatic life with long lasting effects.

Full text of H statements : see section 16

2.2. Label elements

GHS US labelling

Hazard pictograms (GHS US)



Signal word (GHS US)

Danger

Hazard statements (GHS US)

H314 - Causes severe skin burns and eye damage.
H317 - May cause an allergic skin reaction.
H318 - Causes serious eye damage.
H402 - Harmful to aquatic life
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (GHS US)

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

HIT-RE 500, B

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS-US classification
m-Xylylenediamine	(CAS-No.) 1477-55-0	35 - 45	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Corr. 1B, H314 Skin Sens. 1, H317
Quartz (SiO ₂)	(CAS-No.) 14808-60-7	10 - 25	Carc. 1A, H350

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 (acute and delayed)

Potential adverse human health effects and symptoms	Based on available data, the classification criteria are not met.
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.

4.3. Immediate medical attention and special treatment, if necessary

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Foam. Dry powder. Carbon dioxide. Water spray. Sand.
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Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Unsuitable extinguishing media Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Reactivity Corrosive vapours.

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 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 41 - 77 °F

Heat and ignition sources Keep away from heat and direct sunlight.

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Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

m-Xylylenediamine (1477-55-0)		
ACGIH	ACGIH Ceiling (ppm)	0.018 ppm
ACGIH	Remark (ACGIH)	Eye, skin, & GI irr
Quartz (SiO ₂) (14808-60-7)		
ACGIH	ACGIH TWA (mg/m ³)	0.025 mg/m ³ (Respirable fraction)
ACGIH	Remark (ACGIH)	TLV® Basis: Pulm fibrosis; lung cancer. Notations: A2 (Suspected Human Carcinogen)
OSHA	Remark (OSHA)	(3) See Table Z-3.

Additional information

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

8.2. Exposure controls

Personal protective equipment

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



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.

Eye protection

Wear security glasses which protect from splashes.

Skin and body protection

Wear suitable protective clothing.

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.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	Thixotropic paste.
Colour	red
Odour	Amine-like
Odour threshold	No data available
pH	11.5
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	No data available
Relative evaporation rate (butylacetate=1)	No data available
Flammability (solid, gas)	No data available
Explosive limits	No data available
Explosive properties	No data available
Oxidising properties	No data available

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Vapour pressure	No data available
Relative density	No data available
Relative vapour density at 20 °C	No data available
Density	1.41 g/cm ³ DIN EN ISO 1183-3
Solubility	insoluble in water.
Log Pow	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Viscosity, kinematic	No data available
Viscosity, dynamic	50 Pa·s HN-0333

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Corrosive vapours.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity Not classified

m-Xylylenediamine (1477-55-0)	
LD50 oral rat	1090 mg/kg
LD50 dermal rat	> 3100 mg/kg
ATE US (oral)	660 mg/kg bodyweight
ATE US (dust,mist)	1.34 mg/l/4h

Skin corrosion/irritation	Causes severe skin burns and eye damage. pH: 11.5
Serious eye damage/irritation	Causes serious eye damage. pH: 11.5
Respiratory or skin sensitisation	May cause an allergic skin reaction.

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Germ cell mutagenicity	Not classified
	Based on available data, the classification criteria are not met
Carcinogenicity	Not classified

Quartz (SiO ₂) (14808-60-7)	
IARC group	1 - Carcinogenic to humans
Reproductive toxicity	Not classified
	Based on available data, the classification criteria are not met
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.
Symptoms/effects after inhalation	May cause an allergic skin reaction.
Symptoms/effects after eye contact	Causes serious eye damage.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water	Harmful to aquatic life with long lasting effects.
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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, B	
Persistence and degradability	May cause long-term adverse effects in the environment.

Quartz (SiO ₂) (14808-60-7)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

12.3. Bioaccumulative potential

HIT-RE 500, B	
Bioaccumulative potential	Not established.

Quartz (SiO ₂) (14808-60-7)	
Bioaccumulative potential	No bioaccumulation data available.

12.4. Mobility in soil

Quartz (SiO ₂) (14808-60-7)	
Ecology - soil	Low potential for mobility in soil.

12.5. Other adverse effects

HIT-RE 500, B

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Other information

Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)

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.

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
			
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

HIT-RE 500, B

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Transport category (ADR)	2
Orange plates	80 3259
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
Stowage and segregation (IMDG)	Separated from' acids.
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 and the IBC Code

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

15.2. International regulations

CANADA

m-Xylylenediamine (1477-55-0)

Listed on the Canadian DSL (Domestic Substances List)

Quartz (SiO₂) (14808-60-7)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

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Quartz (SiO₂) (14808-60-7)

Listed on IARC (International Agency for Research on Cancer)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Component	State or local regulations
m-Xylylenediamine(1477-55-0)	
Quartz (SiO ₂)(14808-60-7)	

SECTION 16: Other information

Revision date 09/19/2018

Other information None.

Full text of H-statements:

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H350	May cause cancer.
H402	Harmful to aquatic life
H412	Harmful to aquatic life with long lasting effects.

NFPA health hazard

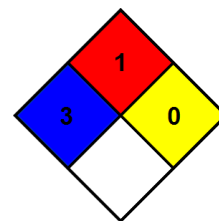
3 - Materials that, under emergency conditions, can cause serious or permanent injury.

NFPA fire hazard

1 - Materials that must be preheated before ignition can occur.

NFPA reactivity

0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

Health

3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

Flammability

1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)

Physical

0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal protection

B

B - Safety glasses, Gloves

SDS_US_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, A

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 05/31/2019

Revision date: 05/31/2019

Supersedes: 09/19/2018

Version: 10.0

SECTION 1: Identification

1.1. Identification

Product form	Mixture
Product name	HIT-RE 500, A
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
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1.3. Details of the supplier of the safety data sheet

Supplier

Hilti, Inc.
Legacy Tower, Suite 1000
7250 Dallas Parkway
TX 75024 Plano - USA
T +1 9724035800
1-800-879-8000 toll free - F +1 918 254 0522

Department issuing data specification sheet

Hilti Entwicklungsgesellschaft mbH
Hiltistraße 6
86916 Kaufering - Deutschland
T +49 8191 906876
anchor.hse@hilti.com

1.4. Emergency telephone number

Emergency number	Chem-Trec Tel.: 1 800 424 9300 (USA, PR, Virgin Islands, Canada) Tel.: 703 527 3887 (Other countries) +1 918 8723000 1-800-879-8000 toll free
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Skin Corr. 1C	H314 - Causes severe skin burns and eye damage.
Eye Dam. 1	H318 - Causes serious eye damage.
Skin Sens. 1	H317 - May cause an allergic skin reaction.
Muta. 2	H341 - Suspected of causing genetic defects (oral).
Repr. 1B	H360 - May damage fertility. (oral).
Aquatic Acute 2	H401 - Toxic to aquatic life
Aquatic Chronic 2	H411 - Toxic to aquatic life with long lasting effects.

Full text of H statements : see section 16

2.2. Label elements

GHS US labelling

Hazard pictograms (GHS US)



GHS05



GHS07



GHS08



GHS09

Signal word (GHS US)

Danger

Hazard statements (GHS US)

H314 - Causes severe skin burns and eye damage.
H317 - May cause an allergic skin reaction.
H318 - Causes serious eye damage.
H341 - Suspected of causing genetic defects (oral).
H360 - May damage fertility. (oral).

HIT-RE 500, A

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Precautionary statements (GHS US)

H401 - Toxic to aquatic life
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.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P302+P352 - If on skin: Wash with plenty of water

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS-US classification
Quartz (SiO ₂)	(CAS-No.) 14808-60-7	25 - 40	Carc. 1A, H350
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane	(CAS-No.) 1675-54-3	25 - 40	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	(CAS-No.) 9003-36-5	10 - 25	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317
Reaction products of hexane-1,6-diol with 2-(chloromethyl)	(CAS-No.) 933999-84-9	10 - 25	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317 Aquatic Chronic 3, H412
trimethylolpropane triglycidylether	(CAS-No.) 30499-70-8	5 - 10	Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1B, H317 Muta. 2, H341 Repr. 1B, H360 Aquatic Chronic 2, H411

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. 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. Drink plenty of water. Get medical advice/attention. Do not induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects (acute and delayed)

Potential adverse human health effects and symptoms	Based on available data, the classification criteria are not met.
Symptoms/effects after inhalation	May cause an allergic skin reaction.

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Symptoms/effects after skin contact	Causes skin irritation.
Symptoms/effects after eye contact	Causes serious eye irritation.

4.3. Immediate medical attention and special treatment, if necessary

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

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	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.
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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	41 - 77 °F
Heat and ignition sources	Keep away from heat and direct sunlight.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)		
Not applicable		
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol (9003-36-5)		
Not applicable		
Reaction products of hexane-1,6-diol with 2-(chloromethyl) (933999-84-9)		
Not applicable		
Quartz (SiO₂) (14808-60-7)		
ACGIH	ACGIH TWA (mg/m ³)	0.025 mg/m ³ (Respirable fraction)
ACGIH	Remark (ACGIH)	TLV® Basis: Pulm fibrosis; lung cancer. Notations: A2 (Suspected Human Carcinogen)
OSHA	Remark (OSHA)	(3) See Table Z-3.
trimethylolpropane triglycidylether (30499-70-8)		
Not applicable		

Additional information

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

8.2. Exposure controls

Personal protective equipment

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



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.

Eye protection

Wear security glasses which protect from splashes.

Skin and body protection

Wear suitable protective clothing.

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.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	Thixotropic paste.
Colour	Light grey
Odour	characteristic
Odour threshold	No data available
pH	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	No data available
Relative evaporation rate (butylacetate=1)	No data available
Flammability (solid, gas)	No data available
Explosive limits	No data available
Explosive properties	Product is not explosive.
Oxidising properties	No data available
Vapour pressure	No data available
Relative density	No data available
Relative vapour density at 20 °C	No data available
Density	1.46 g/ml DIN EN ISO 1183-3
Solubility	insoluble in water.
Log Pow	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Viscosity, kinematic	No data available
Viscosity, dynamic	36 - 53 Pa·s HN-0333

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

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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 toxicological effects

Acute toxicity Not classified

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)	
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
ATE US (oral)	3010 mg/kg bodyweight

Skin corrosion/irritation Causes severe skin burns and eye damage.
 Serious eye damage/irritation Causes serious eye damage.
 Respiratory or skin sensitisation May cause an allergic skin reaction.
 Germ cell mutagenicity Suspected of causing genetic defects (oral).
 Based on available data, the classification criteria are not met
 Carcinogenicity Not classified

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)	
IARC group	3 - Not classifiable
Quartz (SiO2) (14808-60-7)	
IARC group	1 - Carcinogenic to humans

Reproductive toxicity May damage fertility. (oral).
 Based on available data, the classification criteria are not met
 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.
 Symptoms/effects after inhalation May cause an allergic skin reaction.
 Symptoms/effects after skin contact Causes skin irritation.
 Symptoms/effects after eye contact Causes serious eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water 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)

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

12.2. Persistence and degradability

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

Quartz (SiO ₂) (14808-60-7)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

12.3. Bioaccumulative potential

HIT-RE 500, A	
Bioaccumulative potential	Not established.

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).

Quartz (SiO ₂) (14808-60-7)	
Bioaccumulative potential	No bioaccumulation data available.

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 Koc	2.65 (log Koc, SRC PCKOCWIN v2.0, QSAR)
Ecology - soil	Low potential for adsorption in soil.

Quartz (SiO ₂) (14808-60-7)	
Ecology - soil	Low potential for mobility in soil.

12.5. Other adverse effects

Other information Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) 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.
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			
Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shipping name			
Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)			
Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group			
Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards			
Not regulated	Not regulated	Not regulated	Not regulated
Environmentally hazardous substances derogation applies (quantity of liquids ≤ 5 litres or net mass of solids ≤ 5 kg)			
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

Special provisions (ADR) 375

- Transport by sea

No data available

- Air transport

Special provisions (IATA) A197

- Rail transport

Carriage prohibited (RID) No

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

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

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Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol (9003-36-5)	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
Reaction products of hexane-1,6-diol with 2-(chloromethyl) (933999-84-9)	
EPA TSCA Regulatory Flag	E - E - indicates a substance that is the subject of a Section 5(e) Consent Order under TSCA. P - P - indicates a commenced Premanufacture Notice (PMN) substance. S - S - indicates a substance that is identified in a final Significant New Use Rule.
trimethylolpropane triglycidylether (30499-70-8)	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).

15.2. International regulations

Quartz (SiO ₂) (14808-60-7)
Listed on IARC (International Agency for Research on Cancer)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Component	State or local regulations
Quartz (SiO ₂)(14808-60-7)	
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol (9003-36-5)	
Reaction products of hexane-1,6-diol with 2-(chloromethyl)(933999-84-9)	
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane(1675-54-3)	
trimethylolpropane triglycidylether(30499-70-8)	

SECTION 16: Other information

Revision date 05/31/2019
Other information None.

Full text of H-statements:

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.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H360	May damage fertility or the unborn child.
H401	Toxic 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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NFPA health hazard

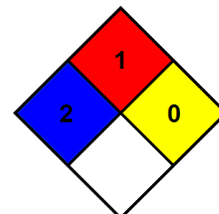
2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard

1 - Materials that must be preheated before ignition can occur.

NFPA reactivity

0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

Health

2 Moderate Hazard - Temporary or minor injury may occur

* - Chronic (long-term) health effects may result from repeated overexposure

Flammability

1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)

Physical

0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal protection

B

B - Safety glasses, Gloves

Indication of changes:

Section	Changed item	Change	Comments
2.1	GHS-US classification	Modified	
2.2	Hazard statements (GHS US)	Added	
3	Composition/information on ingredients	Modified	

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.