

# Hilti HIT-RE 500 300/1 INT

# Hilti HIT-RE 500 500/1 INT

# Hilti HIT-RE 500 1400/1 INT

Safety information for 2-Component-products

Date of issue: 14/08/2018

Revision date: 14/08/2018

Supersedes: 20/10/2017

Version: 9.2

## 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

#### Supplier

Hilti (Thailand) Ltd.  
No. 1858/107-108, 24th Floor, Interlink Tower,  
Bangna-Trad Road, Km. 4.5  
10260 Bangkok - Thailand  
T +66 2 714 5300 - F +66 2 714 5399

#### Manufacturer

Hilti GmbH  
Hiltistraße 6  
86916 Kaufering - Germany  
T +49 8191 90-0

#### Department issuing data specification sheet

Hilti Entwicklungsgesellschaft mbH  
Hiltistraße 6  
86916 Kaufering - Germany  
T +49 8191 906310 - F +49 8191 90176310  
[anchor.hse@hilti.com](mailto:anchor.hse@hilti.com)

## 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

# Hilti HIT-RE 500 300/1 INT

# Hilti HIT-RE 500 500/1 INT

# Hilti HIT-RE 500 1400/1 INT

Safety information for 2-Component-products

## Classification of the Product

### Classification according to MOI notification B.E. 2555 (2012)

Serious eye damage/eye irritation, Category 1	H318
Skin sensitisation, Category 1	H317
Reproductive toxicity, Category 1B	H360F
Hazardous to the aquatic environment — Acute Hazard, Category 2	H401
Hazardous to the aquatic environment — Chronic Hazard, Category 2	H411

## Label elements

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

Hazard pictograms (GHS-TH)



Signal word (GHS-TH)

Danger

Hazardous ingredients

Epoxy resin, Amines

Hazard statements (GHS-TH)

H314 - Causes severe skin burns and eye damage.

H317 - May cause an allergic skin reaction.

H360F - May damage fertility.

H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (GHS-TH)

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.

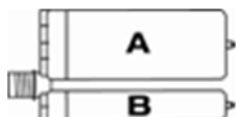
P302+P352 - IF ON SKIN: Wash with plenty of water.

## Additional information

2-component-foilpack, contains:

Component A: Epoxy resin, Reactive diluent, inorganic filler

Component B: Amine hardener, inorganic filler



# Hilti HIT-RE 500 300/1 INT

# Hilti HIT-RE 500 500/1 INT

# Hilti HIT-RE 500 1400/1 INT

Safety information for 2-Component-products

Name	General description	Quantity	Unit	Classification according to the United Nations GHS (Rev. 4, 2011)
HIT-RE 500, A		1	pcs	Skin Corr. 1C, H314 Skin Sens. 1, H317 Repr. 1B, H360 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
HIT-RE 500, B		1	pcs	Skin Corr. 1A, H314 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.

Incompatible materials

Sources of ignition

Direct sunlight

# Hilti HIT-RE 500 300/1 INT

# Hilti HIT-RE 500 500/1 INT

# Hilti HIT-RE 500 1400/1 INT

Safety information for 2-Component-products

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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.

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



Hilti HIT-RE 500 300/1 INT  
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Hilti HIT-RE 500 1400/1 INT

Safety information for 2-Component-products

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No data available

# HIT-RE 500, B

## Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

Date of issue: 14/08/2018 Revision date: 14/08/2018 Supersedes: 20/10/2017 Version: 8.4

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

#### 1.1. Product identifier

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	Manufacturer
Hilti (Thailand) Ltd. No. 1858/107-108, 24th Floor, Interlink Tower, Bangna-Trad Road, Km. 4.5 10260 Bangkok - Thailand T +66 2 714 5300 - F +66 2 714 5399	Hilti GmbH Hiltistraße 6 86916 Kaufering - Germany T +49 8191 90-0

#### Department issuing data specification sheet

Hilti Entwicklungsgesellschaft mbH  
Hiltistraße 6  
86916 Kaufering - Germany  
T +49 8191 906310 - F +49 8191 90176310  
[anchor.hse@hilti.com](mailto:anchor.hse@hilti.com)

#### 1.4. Emergency telephone number

Emergency number	Schweizerisches Toxikologisches Informationszentrum – 24h Service +41 44 251 51 51 (international) +66 2 714 5300
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### SECTION 2: Hazards identification

#### 2.1. Classification of the hazardous chemical

##### Classification according to MOI notification B.E. 2555 (2012)

Skin corrosion/irritation, Category 1	H314
Serious eye damage/eye irritation, Category 1	H318
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

# HIT-RE 500, B

## Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

### 2.2. Label elements

#### Labelling according to MOI notification B.E. 2555 (2012)

Hazard pictograms (GHS-TH)



GHS05

GHS07

Signal word (GHS-TH)

Danger

Hazard statements (GHS-TH)

H314 - Causes severe skin burns and eye damage.

H317 - May cause an allergic skin reaction.

H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (GHS-TH)

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 on skin and if skin irritation or rash occurs, seek medical advice and attention.

P337+P313 - If eye irritation persists: Get medical advice and attention.

P302+P352 - IF ON SKIN: Wash with plenty of water/...

### 2.3. Other hazards

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to MOI notification B.E. 2555 (2012)
m-Xylylenediamine	(CAS-No.) 1477-55-0	35 - 45	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Corr. 1, H314 Skin Sens. 1, H317 Aquatic Acute 3, H402 Aquatic Chronic 3, H412

## 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.

# HIT-RE 500, B

## Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

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.

### 4.3. Indication of any immediate medical attention and special treatment needed

Other medical advice or treatment	Treat symptomatically.
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## 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

General measures	Spilled material may present a slipping hazard.
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### 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.
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#### 6.1.1. For non-emergency personnel

Emergency procedures	Evacuate unnecessary personnel.
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# HIT-RE 500, B

## Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

### 6.1.2. For emergency responders

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

### 6.2. Environmental precautions

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

### 6.3. Methods and material for containment and cleaning up

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

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

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

### 7.2. Conditions for safe storage, including any incompatibilities

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

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

# HIT-RE 500, B

## Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

Additional information

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

### 8.2. Monitoring

No additional information available

### 8.3. Appropriate engineering controls

No additional information available

### 8.4. Personal protective equipment

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.

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

Eye protection

Wear security glasses which protect from splashes

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

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.

## 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
Relative evaporation rate (butylacetate=1)	No data available

# HIT-RE 500, B

## Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

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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
Density	1.41 g/cm <sup>3</sup> DIN EN ISO 1183-3
Solubility	insoluble in water.
Log Pow	No data available
Viscosity, kinematic	No data available
Viscosity, dynamic	50 Pa.s HN-0333
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

Chemical stability	Stable under normal conditions
Conditions to avoid	Direct sunlight,Extremely high or low temperatures
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
Incompatible materials	Strong acids,Strong bases
Possibility of hazardous reactions	No additional information available
Reactivity	Corrosive vapours

# HIT-RE 500, B

## Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

### 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

m-Xylylenediamine (1477-55-0)	
LD50 oral rat	1090 mg/kg
LD50 oral	660 mg/kg
LD50 dermal rat	> 3100 mg/kg
LD50 dermal	> 3100 mg/kg
LC50 inhalation rat (Dust/Mist - mg/l/4h)	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.

Respiratory or skin sensitisation May cause an allergic skin reaction.

Germ cell mutagenicity Not classified

Carcinogenicity Not classified

Reproductive toxicity Not classified

STOT-single exposure Not classified

STOT-repeated exposure Not classified

Aspiration hazard Not classified

HIT-RE 500, B	
Viscosity, kinematic	35460.993 mm <sup>2</sup> /s

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 Harmful to aquatic life with long lasting effects.

Acute aquatic toxicity Harmful to aquatic life.

Chronic aquatic toxicity Harmful to aquatic life with long lasting effects.

# HIT-RE 500, B

## Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

Other information

Avoid release to the environment.

<b>m-Xylylenediamine (1477-55-0)</b>	
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

<b>HIT-RE 500, B</b>	
Persistence and degradability	May cause long-term adverse effects in the environment.

### 12.3. Bioaccumulative potential

<b>HIT-RE 500, B</b>	
Bioaccumulative potential	Not established.

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

Ozone	Not classified
Other adverse effects	No additional information available

## 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

# HIT-RE 500, B

## Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

ADR	IMDG	IATA	RID
<b>14.1. UN number</b>			
3259	3259	3259	3259
<b>14.2. UN proper shipping name</b>			
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)
<b>Transport document description</b>			
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
<b>14.3. Transport hazard class(es)</b>			
8	8	8	8
			
<b>14.4. Packing group</b>			
II	II	II	II
<b>14.5. Environmental hazards</b>			
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available			

### 14.6. Special precautions for user

#### - Overland transport

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



# HIT-RE 500, B

## Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

Tunnel restriction code (ADR)	E
EAC code	2X
<b>- Transport by sea</b>	
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
<b>- Air transport</b>	
PCA packing instructions (IATA)	859
PCA max net quantity (IATA)	15kg
CAO packing instructions (IATA)	863
Special provisions (IATA)	A3
<b>- Rail transport</b>	
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

## SECTION 16: Other information

Version	8.4
Date of issue	8/14/2018
Revision date	14/08/2018

# HIT-RE 500, B

## Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

Supersedes 20/10/20170

Other information None.

Full text of H-statements:

Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 3	Hazardous to the aquatic environment — Acute Hazard, Category 3
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Skin Corr. 1	Skin corrosion/irritation, Category 1
Skin Sens. 1	Skin sensitisation, Category 1
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.
H402	Harmful to aquatic life
H412	Harmful to aquatic life with long lasting effects.

SDS\_TH\_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 the MOI Notification B.E. 2555 (2012)

Date of issue: 14/08/2018 Revision date: 14/08/2018 Supersedes: 20/10/2017 Version: 9.2

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

#### 1.1. Product identifier

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	Manufacturer
Hilti (Thailand) Ltd. No. 1858/107-108, 24th Floor, Interlink Tower, Bangna-Trad Road, Km. 4.5 10260 Bangkok - Thailand T +66 2 714 5300 - F +66 2 714 5399	Hilti GmbH Hiltistraße 6 86916 Kaufering - Germany T +49 8191 90-0

#### Department issuing data specification sheet

Hilti Entwicklungsgesellschaft mbH  
Hiltistraße 6  
86916 Kaufering - Germany  
T +49 8191 906310 - F +49 8191 90176310  
[anchor.hse@hilti.com](mailto:anchor.hse@hilti.com)

#### 1.4. Emergency telephone number

Emergency number	Schweizerisches Toxikologisches Informationszentrum – 24h Service +41 44 251 51 51 (international) +66 2 714 5300
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### SECTION 2: Hazards identification

#### 2.1. Classification of the hazardous chemical

##### Classification according to MOI notification B.E. 2555 (2012)

Skin corrosion/irritation, Category 1	H314
Serious eye damage/eye irritation, Category 1	H318
Skin sensitisation, Category 1	H317
Reproductive toxicity, Category 1B	H360F
Hazardous to the aquatic environment — Acute Hazard, Category 2	H401
Hazardous to the aquatic environment — Chronic Hazard, Category 2	H411

# HIT-RE 500, A

## Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

### 2.2. Label elements

#### Labelling according to MOI notification B.E. 2555 (2012)

Hazard pictograms (GHS-TH)



Signal word (GHS-TH)

Danger

Hazard statements (GHS-TH)

H314 - Causes severe skin burns and eye damage.  
 H317 - May cause an allergic skin reaction.  
 H360F - May damage fertility.  
 H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (GHS-TH)

P280 - Wear eye protection, protective clothing, protective gloves.  
 P260 - Do not breathe vapours.  
 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 on skin and if skin irritation or rash occurs, seek medical advice and attention.  
 P337+P313 - If eye irritation persists: Get medical advice and attention.  
 P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

### 2.3. Other hazards

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to MOI notification B.E. 2555 (2012)
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 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
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 Aquatic Chronic 2, H411
Reaction products of hexane-1,6-diol with 2-(chloromethyl)	(CAS-No.) 933999-84-9	10 - 25	Flam. Liq. Not classified Acute Tox. 5 (Oral), H303 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317 Aquatic Acute 3, H402 Aquatic Chronic 3, H412
1,3 Propanediol, 2 ethyl-2-(hydroxymethyl)-, polymer with 2-(chloromethyl)oxirane	(CAS-No.) 30499-70-8	5 - 10	Skin Corr. 1, H314 Eye Dam. 1, H318 Skin Sens. 1B, H317 Repr. 1B, H360 Aquatic Chronic 2, H411

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## Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

### 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. Assure fresh air breathing. 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, both acute and delayed

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.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Other medical advice or treatment	Treat symptomatically.
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### 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

General measures	Spilled material may present a slipping hazard.
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#### 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.

# HIT-RE 500, A

## Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

General measures Spilled material may present a slipping hazard.

##### 6.1.1. For non-emergency personnel

Emergency procedures Evacuate unnecessary personnel.

##### 6.1.2. For emergency responders

Protective equipment Use personal protective equipment as required. Equip cleanup crew with proper protection.

Emergency procedures Ventilate area.

#### 6.2. Environmental precautions

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

#### 6.3. Methods and material for containment and cleaning up

For containment Collect spillage.

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

Other information Dispose of materials or solid residues at an authorized site.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling Wear personal protective equipment. Avoid contact with skin and eyes. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Hygiene measures Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

#### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions Protect from sunlight.

Incompatible products Strong bases. Strong acids.

Incompatible materials Sources of ignition. Direct sunlight.

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

# HIT-RE 500, A

## Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

### 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.

#### 8.2. Monitoring

No additional information available

#### 8.3. Appropriate engineering controls

No additional information available

#### 8.4. Personal protective equipment

**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.

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

**Eye protection** Wear security glasses which protect from splashes

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

**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.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

**Physical state** Solid

**Appearance** Thixotropic paste.

# HIT-RE 500, A

## Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

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Colour	Light grey.
Odour	characteristic.
Odour threshold	No data available
pH	No data available
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
Density	1.46 g/ml DIN EN ISO 1183-3
Solubility	insoluble in water.
Log Pow	No data available
Viscosity, kinematic	No data available
Viscosity, dynamic	36 - 53 Pa.s HN-0333
Explosive properties	Product is not explosive.
Oxidising properties	No data available
Explosive limits	No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

Chemical stability	Stable under normal conditions
Conditions to avoid	Direct sunlight,Extremely high or low temperatures
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
Incompatible materials	Strong acids,Strong bases

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## Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

Possibility of hazardous reactions

No additional information available

## 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

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 Not classified

Carcinogenicity Not classified

Reproductive toxicity May damage fertility.

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

Toxic to aquatic life with long lasting effects.

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## Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

Acute aquatic toxicity	Toxic to aquatic life.
Chronic aquatic toxicity	Toxic to aquatic life with long lasting effects.
Other information	Avoid release to the environment.

<b>2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)</b>	
LC50 fish 1	1.2 mg/l (96 h; Oncorhynchus mykiss; Lethal)
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.)

<b>Reaction products of hexane-1,6-diol with 2-(chloromethyl) (933999-84-9)</b>	
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

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

### 12.3. Bioaccumulative potential

<b>HIT-RE 500, A</b>	
Bioaccumulative potential	Not established.

<b>2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)</b>	
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).

### 12.4. Mobility in soil

<b>2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane (1675-54-3)</b>	
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.

### 12.5. Other adverse effects

Ozone	Not classified
Other adverse effects	No additional information available



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## Safety Data Sheet

According to the MOI Notification B.E. 2555 (2012)

### 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
<b>14.1. UN number</b>			
Not regulated	Not regulated	Not regulated	Not regulated
<b>14.2. UN proper shipping name</b>			
Not regulated	Not regulated	Not regulated	Not regulated
<b>14.3. Transport hazard class(es)</b>			
Not regulated	Not regulated	Not regulated	Not regulated
<b>14.4. Packing group</b>			
Not regulated	Not regulated	Not regulated	Not regulated
<b>14.5. Environmental hazards</b>			
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

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According to the MOI Notification B.E. 2555 (2012)

### - Air transport

Special provisions (IATA) A197

### - Rail transport

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

## SECTION 16: Other information

Version	9.2
Date of issue	8/14/2018
Revision date	14/08/2018
Supersedes	20/10/20170
Indication of changes:	
3	Composition/informati Modified on on ingredients
Other information	None.

Full text of H-statements:

Acute Tox. 5 (Oral)	Acute toxicity (oral), Category 5
Aquatic Acute 2	Hazardous to the aquatic environment — Acute Hazard, Category 2
Aquatic Acute 3	Hazardous to the aquatic environment — Acute Hazard, Category 3
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Flam. Liq. Not classified	Flammable liquids Not classified
Repr. 1B	Reproductive toxicity, Category 1B
Repr. 1B	Reproductive toxicity, Category 1B
Skin Corr. 1	Skin corrosion/irritation, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1

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According to the MOI Notification B.E. 2555 (2012)

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Skin Sens. 1B	Skin sensitisation, category 1B
H303	May be harmful if swallowed
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.
H360	May damage fertility or the unborn child.
H360F	May damage fertility.
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

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