

1 Identification of the substance/mixture and of the company/undertaking· **Product identifier**· **Trade name:** **Hilti HIT-RE 500**· **Container size** 330 ml, 500 ml, 1400 ml· **Relevant identified uses of the substance or mixture and uses advised against**· **Sector of Use** Building and construction work· **Application of the substance / the preparation** Adhesive mortar for rebar and anchor fastenings in solid concrete· **Details of the supplier of the safety data sheet**· **Manufacturer/Supplier:**

Hilti (Gt. Britain) Ltd.

1 Trafford Wharf Road

Trafford Park

GB-M17 1BY Manchester

Phone: 0800 886 100 (Freephone)

Fax: 0800 886 200 (Freefax)

Email: gbsales@hilti.com

· **Informing department:**

anchor.hse@hilti.com

see section 16

· **Emergency telephone number:**

Hilti (Gt. Britain) Ltd

Phone: 0800 886 100 (Freephone)

Fax: 0800 886 200 (Freefax)

Schweizerisches Toxikologisches Informationszentrum - 24 h Service

Tel.: 0041 / 44 251 51 51 (international)

2 Hazards identification· **Classification of the substance or mixture**· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

C; Corrosive

R35: Causes severe burns.



Xn; Harmful

R20/22: Harmful by inhalation and if swallowed.



Xi; Irritant

R41: Risk of serious damage to eyes.



Xi; Sensitising

R43: May cause sensitisation by skin contact.



N; Dangerous for the environment

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

· **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

· **Classification system:**

The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

· **Label elements**· **Labelling according to EU guidelines:**

The product has been classified and labelled in accordance with EC Directives / Ordinance on Hazardous Materials (GefStoffV)

· **Code letter and hazard designation of product:**

C Corrosive

N Dangerous for the environment

· **Hazard-determining components of labelling:**

m-Xylenediamine

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin

(number average molecular weight = 700)

Reaction product: bisphenol-F epichlorhydrin resin, MW \leq 700

1,6-bis(2,3-epoxypropoxy)hexane

Trimethylolpropane, (chloromethyl)oxirane polymer

(Contd. on page 2)

GB

Trade name: Hilti HIT-RE 500

(Contd. of page 1)

Risk phrases:

- 20/22 Harmful by inhalation and if swallowed.
- 35 Causes severe burns.
- 41 Risk of serious damage to eyes.
- 43 May cause sensitisation by skin contact.
- 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases:

- 1/2 Keep locked up and out of the reach of children.
- 23 Do not breathe vapour.
- 24/25 Avoid contact with skin and eyes.
- 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- 28 After contact with skin, wash immediately with plenty of water and soap.
- 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
- 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

Special labelling of certain preparations:

Contains epoxy constituents. See information supplied by the manufacturer.
 Restricted to professional users.

Other hazards**Results of PBT and vPvB assessment**

- PBT:** Not applicable.
- vPvB:** Not applicable.

Additional information:**Information pertaining to particular dangers for man and environment: A**

- R 36/38 Irritating to eyes and skin
- R 43 May cause sensitisation by skin contact
- R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Information pertaining to particular dangers for man and environment: B

- R 35 Causes severe burns
- R 41 Risk of serious damage to eyes
- R 43 May cause sensitization by inhalation and skin contact
- R 20/22 Harmful on inhalation and if swallowed
- R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

* **3 Composition/information on ingredients**
Chemical characterization: Mixtures**Description:**

2-component-foilpack, contains:
 Component A: Epoxy resin, Reactive diluent, inorganic filler
 Component B: Amine hardener, inorganic filler

Mixture of the substances listed below with harmless additions.

Dangerous components:

CAS: 25068-38-6 NLP: 500-033-5	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700) ☒ Xi R36/38; ☒ Xi R43; ☒ N R51/53 ☒ Aquatic Chronic 2, H411; ☐ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	25-50%
CAS: 28064-14-4	Reaction product: bisphenol-F epichlorhydrin resin, MW ≤ 700 ☒ Xi R36/38; ☒ Xi R43; ☒ N R51/53 ☒ Aquatic Chronic 2, H411; ☐ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	10-25%
CAS: 16096-31-4 EINECS: 240-260-4	1,6-bis(2,3-epoxypropoxy)hexane ☒ Xi R36/38; ☒ Xi R43 R52/53 ☒ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; Aquatic Chronic 3, H412	10-25%
CAS: 30499-70-8	Trimethylolpropane, (chloromethyl)oxirane polymer ☒ Xi R36/38; ☒ Xi R43 R52/53 ☒ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; Aquatic Chronic 3, H412	2.5-10%
CAS: 1477-55-0 EINECS: 216-032-5 Reg.nr.: 01-2119480150-50	m-Xylenediamine ☒ C R35; ☒ Xn R20/22; ☒ Xi R43 R52/53 ☒ Acute Tox. 3, H331; ☒ Skin Corr. 1A, H314; ☐ Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317; Aquatic Chronic 3, H412	30-40%

(Contd. on page 3)

GB

Trade name: Hilti HIT-RE 500

(Contd. of page 2)

Dangerous components A:	
CAS: 25068-38-6 NLP: 500-033-5	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)
CAS: 28064-14-4	Reaction product: bisphenol-F epichlorhydrin resin, MW ≤ 700
CAS: 16096-31-4 EINECS: 240-260-4	1,6-bis(2,3-epoxypropoxy)hexane R52/53
CAS: 30499-70-8	Trimethylolpropane, (chloromethyl)oxirane polymer R52/53
Dangerous components B:	
CAS: 1477-55-0 EINECS: 216-032-5 Reg.nr.: 01-2119480150-50	m-Xylenediamine R52/53

Additional information For the wording of the listed risk phrases refer to section 16.

4 First aid measures

- Description of first aid measures**
- General information** Instantly remove any clothing soiled by the product.
- After inhalation**
Take affected persons into the open air and position comfortably
Seek medical treatment in case of complaints.
- After skin contact** Instantly wash with water and soap and rinse thoroughly. If skin irritation persist, call a physician.
- After eye contact**
Seek immediate medical advice.
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Protect unharmed eye.
Seek medical treatment.
- After swallowing**
Do not induce vomiting; immediately call for medical help.
Rinse the mouth with water immediately
- Information for doctor**
- Most important symptoms and effects, both acute and delayed** Allergic reactions
- Indication of any immediate medical attention and special treatment needed** No further relevant information available.

5 Firefighting measures

- Extinguishing media**
- Suitable extinguishing agents** Water spray, carbon dioxide (CO₂), carbon dioxide blanket, foam, or dry powder.
- For safety reasons unsuitable extinguishing agents** Water with full jet.
- Special hazards arising from the substance or mixture**
Can be released in case of fire
Nitrogen oxides (NO_x)
Carbon monoxide (CO)
Under certain fire conditions, traces of other toxic gases cannot be excluded.
- Advice for firefighters**
- Protective equipment:** In the event of fire, wear self contained breathing apparatus

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Wear protective clothing.
Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition.
- Environmental precautions:**
Do not allow product to reach sewage system or water bodies.
Do not allow to enter the ground/soil.
- Methods and material for containment and cleaning up:**
Collect mechanically.
Clean the accident area carefully; suitable cleaners are:
organic solvent
Dispose of contaminated material as waste according to item 13.

(Contd. on page 4)

GB

Trade name: Hilti HIT-RE 500

(Contd. of page 3)

· **Reference to other sections**

- See Section 7 for information on safe handling
- See Section 8 for information on personal protection equipment.
- See Section 13 for information on disposal.

* **7 Handling and storage**· **Handling**· **Precautions for safe handling**

The usual precautionary measures should be adhered to general rules for handling chemicals.

Take note of emission threshold.

Use only in well ventilated areas.

Check the expiry date: see imprint on manifold (month/year). Do not use expired mortar!

· **Information about protection against explosions and fires:** Keep ignition sources away - Do not smoke.· **Conditions for safe storage, including any incompatibilities**· **Storage**· **Requirements to be met by storerooms and containers:** Keep in a cool, dry and dark place; 5 °C to 25 °C.· **Information about storage in one common storage facility:** Store away from foodstuffs.· **Further information about storage conditions:** Protect from heat and direct sunlight.· **Storage class**

As per VCI (1991) storage classification concept.

8A

· **Specific end use(s)** Adhesive mortar for rebar and anchor fastenings in solid concrete* **8 Exposure controls/personal protection**· **Control parameters**· **Components with limit values that require monitoring at the workplace:**

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

1477-55-0 m-Xylenediamine (30-40%)

MAK 0.1 mg/m³ (NL)

· **Additional information:** The lists that were valid during the compilation were used as basis.· **Exposure controls**· **Personal protective equipment**· **General protective and hygienic measures**

The usual precautionary measures should be adhered to general rules for handling chemicals.

Take off immediately all contaminated clothing

Wash hands during breaks and at the end of the work.

Store protective clothing separately.

Avoid contact with the eyes and skin.

Do not eat, drink or smoke while working.

Use skin protection cream for preventive skin protection.

Clean skin thoroughly immediately after handling the product.

Ensure that washing facilities are available in the work place.

Do not carry cleaning cloths impregnated with the product in trouser pockets.

Keep away from foodstuffs, beverages and food.

· **Breathing equipment:**

Not necessary if room is well-ventilated.

In case of brief exposure or low pollution use breathing filter apparatus. In case of intensive or longer exposure use breathing apparatus that is independent of circulating air.

· **Recommended filter device for short term use:** Filter AX· **Protection of hands:**

Protective gloves

EN 374 / EN 388

Avoid direct contact with the chemical/ the product/ the preparation by organizational measures.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· **Material of gloves**

Nitrile rubber, NBR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **As protection from splashes gloves made of the following materials are suitable:** Nitrile rubber, NBR· **Not suitable are gloves made of the following materials:**

Natural rubber, NR

Leather gloves

Strong gloves

· **Eye protection:**

Tightly sealed safety glasses.

Gauze goggles

Face protection

(Contd. on page 5)

GB

Trade name: Hilti HIT-RE 500

EN 166 / EN 170

(Contd. of page 4)

· **Body protection:** Protective work clothing.**9 Physical and chemical properties**· **Information on basic physical and chemical properties**· **General Information**· **Appearance:**Form:
Colour:pasty
Component A: grey
Component B: red
Mixture: red· **Odour:**

Amine-like

· **pH-value:**Component A: 7
Component B: 11,5
Mixture: 11,5· **Change in condition**

Melting point/Melting range: Not determined

Boiling point/Boiling range: > 200°C

· **Flash point:**

> 100°C (DIN 53213)

· **Inflammability (solid, gaseous)**

Not determined

· **Ignition temperature:**

Not determined

· **Decomposition temperature:**

Not determined

· **Self-inflammability:**

Product is not selfigniting.

· **Danger of explosion:**

Product is not explosive.

· **Critical values for explosion:**Lower:
Upper:Not determined
Not determined· **Vapour pressure at 20°C:**

0.04 hPa

· **Density**Component A: 1.5 g/cm³ (DIN 51757)
Component B: 1.4 g/cm³ (DIN 51757)

Not determined

· **Relative density**

Not determined

· **Vapour density**

Not determined

· **Evaporation rate**

Not determined

· **Solubility in / Miscibility with**

Water: Unsoluble

· **Partition coefficient (n-octanol/water):** Not determined· **Viscosity:**

dynamic at 20°C: 50 Pa.s (DIN 53788)

kinematic at 20°C: > 20 s (DIN 53211/4)

· **Solvent content:**

Organic solvents: 0 %

Water: 0 %

· **Other information**

No further relevant information available.

10 Stability and reactivity· **Reactivity**· **Chemical stability**· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.· **Possibility of hazardous reactions** No dangerous reactions known· **Conditions to avoid** No further relevant information available.· **Incompatible materials:** No further relevant information available.· **Hazardous decomposition products:** No dangerous decomposition products known**11 Toxicological information**· **Information on toxicological effects**· **Acute toxicity:**· **LD/LC50 values that are relevant for classification:****1477-55-0 m-Xylenediamine**

Oral	LD50	1040 mg/kg (rango)
Dermal	LD50	2000 mg/kg (kaninchen)

(Contd. on page 6)

GB

Trade name: Hilti HIT-RE 500

(Contd. of page 5)

Inhalative LC50/4h 2.4 mg/l (rango)

· **Primary irritant effect:**

- **on the skin:** Caustic effect on skin and mucous membranes.
- **on the eye:** Strong caustic effect.

Strong irritant with the danger of severe eye injury.

· **Sensitization:** Sensitization possible by skin contact.

· **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:

Corrosive

Harmful

12 Ecological information· **Toxicity**· **Aquatic toxicity:**

**25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin
(number average molecular weight = 700)**

EC50/48h	9.4 mg/l (Algae)
	1.7 mg/l (magna daphnia)
EC50/96h	1.2 mg/l (fisch)

28064-14-4 Reaction product: bisphenol-F epichlorhydrin resin, MW ≤ 700

EC50/48h	9.4 mg/l (Algae)
	1.7 mg/l (magna daphnia)
EC50/96h	1.5 mg/l (fisch)

16096-31-4 1,6-bis(2,3-epoxypropoxy)hexane

EC50/48h	23.1 mg/l (Algae)
	39 mg/l (magna daphnia)
EC50/96h	17.1 mg/l (fisch)

1477-55-0 m-Xylylenediamine

EC50/48h	12 mg/l (Algae)
	15.2 mg/l (magna daphnia)
EC50/96h	75 mg/l (fisch)

· **Persistence and degradability** No further relevant information available.· **Behaviour in environmental systems:**· **Bioaccumulative potential** No further relevant information available.· **Mobility in soil** No further relevant information available.· **Ecotoxicological effects:**· **Remark:** Toxic for fish· **Additional ecological information:**· **According to recipe contains the following heavy metals and compounds according to EC guideline NO. 76/464 EC:** None· **General notes:**

Avoid transfer into the environment.

The product contains materials that are harmful to the environment.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.

· **Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.· **Other adverse effects** No further relevant information available.**13 Disposal considerations**· **Waste treatment methods**· **Recommendation**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Hand over to disposers of hazardous waste.

Full or only partially emptied cartridges must be disposed of as special waste in accordance with official regulations.

· **European waste catalogue**

08 00 00 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS

08 04 00 wastes from MFSU of adhesives and sealants (including waterproofing products)

08 04 09* waste adhesives and sealants containing organic solvents or other dangerous substances

20 00 00 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS

20 01 00 separately collected fractions (except 15 01)

(Contd. on page 7)

GB

Trade name: Hilti HIT-RE 500

(Contd. of page 6)

20 01 27* paint, inks, adhesives and resins containing dangerous substances

· **Uncleaned packagings:**· **Recommendation:**

Disposal must be made according to official regulations.

Dispose of packaging according to regulations on the disposal of packagings.

Empty packs: May be disposed via the local Green Dot collecting system (valpak) or EAK waste material code 150102 (plastic packaging materials)

14 Transport information

· UN-Number	
· ADR, IMDG, IATA	3259 / PG II 3077 / PG III
· UN proper shipping name	
· ADR	AMINES, SOLID, CORROSIVE, N.O.S. (m-Xylylenediamine) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Bisphenol A/F Epoxy Resin)
· IMDG, IATA	AMINES, SOLID, CORROSIVE, N.O.S (m-Xylylenediamine) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (Bisphenol A/F Epoxy Resin)
· Transport hazard class(es)	
· ADR	8 Corrosive substances 9 Miscellaneous dangerous substances and articles.
· IMDG, IATA	8 9
· Label	8 9
· Packing group	
· ADR, IMDG, IATA	3259 / PG II 3077 / PG III
· Environmental hazards:	
· Marine pollutant:	yes
· Special precautions for user	Not applicable.
· EMS Number:	F-A, S-B F-A, S-F
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Tunnel restriction code	E
· IMDG	
· Remarks:	Limited Quantity (LQ): 1 kg 5 kg
· IATA	
· Remarks:	Packing Instruction No. UN 3259: 859 UN 3077: 956
· HS-Code:	All packed in one 3214 10 10: Glaziers' putty, grafting putty, resin cements, caulking compounds and other mastics

15 Regulatory information· **Safety, health and environmental regulations/legislation specific for the substance or mixture**· **National regulations**

The product is subject to classification in accordance with the prevailing version of the regulations on hazardous materials.

Council Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work. Article 12 Training of workers

· **Information about limitation of use:** Employment restrictions concerning young persons must be observed.· **Other regulations, limitations and prohibitive regulations**· **Substances of very high concern (SVHC) according to REACH, Article 57** None

(Contd. on page 8)

GB

Trade name: Hilti HIT-RE 500

(Contd. of page 7)

· **Chemical safety assessment:** not required.**16 Other information**

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.
R20/22 Harmful by inhalation and if swallowed.
R35 Causes severe burns.
R36/38 Irritating to eyes and skin.
R43 May cause sensitisation by skin contact.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

· **Department issuing data specification sheet:**

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· * Data compared to the previous version altered.

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