




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

- **Product identifier**
- **Trade name:** Hilti HFX
- **Container size** 296 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 anchor fastenings
Suitable for use in hollow masonry, solid masonry and concrete
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Hilti South Africa
72 Gazelle Avenue, Corporate Park
PO Box 5588
Halfway House
1685 Midrand
Phone: 08000 23331 (Toll free)
Fax: 011 237 3111
Email: Customercare.za@hilti.com
- **Informing department:**
anchor.hse@hilti.com
see section 16
- **Emergency telephone number:**
Schweizerisches Toxikologisches Informationszentrum - 24 h Service
Tel.: 0041 / 44 251 51 51 (international)
- Hilti South Africa
Phone: 08000 23331 (Toll free)
Fax: 011 237 3111

2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
 Xi; Irritant
 R36: Irritating to eyes.
-  Xi; Sensitising
 R43: May cause sensitisation by skin contact.
- R52/53: Harmful 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:**
 Xi Irritant
- **Hazard-determining components of labelling:**
methacrylic acid, monoester with propane-1,2-diol
dibenzoyl peroxide
- **Risk phrases:**
36 Irritating to eyes.
43 May cause sensitisation by skin contact.
52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- **Safety phrases:**
2 Keep out of the reach of children.
3 Keep in a cool place.
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.
46 If swallowed, seek medical advice immediately and show this container or label.

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- **Special labelling of certain preparations:**
Only for trade users / technical specialists
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

- **Description:**

Plastic-cartridge, contains:
Methacrylate resin, inorganic filler
Dibenzoyl peroxide, phlegmatized

Mixture of the substances listed below with harmless additions.

- **Dangerous components:**

27813-02-1	methacrylic acid, monoester with propane-1,2-diol Xi R36; Xi R43 Eye Irrit. 2, H319; Skin Sens. 1, H317	5-10%
43048-08-4	Tricyclodecane dimethanol dimethacrylate Xi R36/38 Skin Irrit. 2, H315; Eye Irrit. 2, H319	1-5%
3290-92-4	Trimethylolpropane trimethacrylate N R51/53 Aquatic Chronic 2, H411	1-5%
10043-35-3	boric acid T Repr. Cat. 2 R60-61 Repr. 1B, H360FD	<0,5%
94-36-0	dibenzoyl peroxide Xi R36; Xi R43; E R3; O R7 Org. Perox. B, H241; Eye Irrit. 2, H319; Skin Sens. 1, H317	<2,5%

- **SVHC**

10043-35-3	boric acid
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- **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** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
- **After swallowing**
Rinse out mouth and then drink plenty of water.
Seek immediate medical advice.
- **Information for doctor**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **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)
Carbon dioxide (CO₂)
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

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6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
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.
Dispose of the material collected according to regulations.
- **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**
Expiry date: See label (month/year) Use of the cartridge after this date is not permissible.
Keep away from heat and direct sunlight.
The usual precautionary measures should be adhered to general rules for handling chemicals.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect from heat.
- **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:**
Store in a cool place.
Store in the dark.
Protect from heat and direct sunlight.
- **Storage class**
As per VCI (1991) storage classification concept.
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- **Specific end use(s)**
Adhesive mortar for anchor fastenings
Suitable for use in hollow masonry, solid masonry and concrete

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
The product has a pasty consistency. Exposure limit values for respirable dusts are not relevant for this product.
- **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.
Do not inhale gases / fumes / aerosols.
Keep away from foodstuffs, beverages and food.
Wash hands during breaks and at the end of the work.
Avoid contact with the eyes and skin.
- **Breathing equipment:** Not required.
- **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.
- **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.
- **Not suitable are gloves made of the following materials:**
Natural rubber, NR
Leather gloves

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- Strong gloves
- **Eye protection:**
Tightly sealed safety glasses.
EN 166 / EN 170
- **Body protection:** Protective work clothing.

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

- Form: pasty
- Colour: Grey
- Odour: Ester-like
- Odour threshold: Not determined.

- pH-value at 20°C: ~ 6

· Change in condition

- Melting point/Melting range: Not determined
- Boiling point/Boiling range: Not determined

- Flash point: > 100°C (DIN 53213)

- Inflammability (solid, gaseous) Not determined

· Ignition temperature:

- Decomposition temperature: > 60°C (SADT)

- Self-inflammability: Product is not selfigniting.

- Danger of explosion: Product is not explosive.

· Critical values for explosion:

- Lower: Not determined
- Upper: Not determined

- Vapour pressure: Not determined

- Density at 20°C 1,7 g/cm³ (DIN 51757)

- Relative density Not determined

- Vapour density Not determined

- Evaporation rate Not determined

· Solubility in / Miscibility with

- Water: Not miscible or difficult to mix

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

· Viscosity:

- dynamic at 20°C: ~ 80 Pas (DIN 53788)
- kinematic at 20°C: > 20 s (DIN 53211/4)

· Solvent content:

- Organic solvents: 0 %
- Water: ~ 8 %

- 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:

10043-35-3 boric acid

Oral | LD50 | 2660 mg/kg (rango)

· Primary irritant effect:

- on the skin: No irritant effect.
- on the eye: Irritant effect.

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· **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:
Irritant

12 Ecological information

· **Toxicity**

· **Aquatic toxicity:**

3290-92-4 Trimethylolpropane trimethacrylate

EC50/96h	4,43 mg/l (Algae)
	>9,22 mg/l (magna daphnia)
	2 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.

· **Additional ecological information:**

· **According to recipe contains the following heavy metals and compounds according to EC guideline NO. 76/464 EC:** None

· **General notes:**

Do not allow product to reach ground water, water bodies or sewage system.

The product does not contain organically bounded halogens (AOX-free).

· **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**

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.

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

· **Uncleaned packagings:**

· **Recommendation:**

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

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

14 Transport information

· **UN-Number**

· **ADR, IMDG, IATA**

Void

· **UN proper shipping name**

· **ADR, IMDG, IATA**

Void

· **Transport hazard class(es)**

· **ADR, IMDG, IATA**

· **Class**

Void

· **Packing group**

· **ADR, IMDG, IATA**

Void

· **Environmental hazards:**

· **Marine pollutant:**

No

· **Special precautions for user**

Not applicable.

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

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|--------------------------------------------|--------------------------------------------------------------------------------------------------|
| · Transport/Additional information: | Not dangerous according to the above specifications.
available oxygen content < 1 % |
| · HS-Code: | 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**
- **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

10043-35-3 boric acid

- **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

- H241 Heating may cause a fire or explosion.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H360FD May damage fertility. May damage the unborn child.
H411 Toxic to aquatic life with long lasting effects.
- R3 Extreme risk of explosion by shock, friction, fire or other sources of ignition.
R36 Irritating to eyes.
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.
R60 May impair fertility.
R61 May cause harm to the unborn child.
R7 May cause fire.

· Department issuing data specification sheet:

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· **Contact:** Mechthild Krauter

· *** Data compared to the previous version altered.**

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