


1 Identification

- **Product identifier**
- **Trade name:** **Hilti HIT-ICE**
- **Container size:** 10.0 fl. oz. / 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 mixture** Adhesive anchoring system for rebar and anchor fastenings in concrete
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Hilti (Canada) Corp.
2360 Meadowpine Boulevard
Mississauga, Ontario L5N 6S2
Phone: (800) 363-4458
Fax: (800) 363-4459
- **Information department:**
anchor.hse@hilti.com
see section 16
- **Emergency telephone number:**
Chem-Trec
Tel.: 1 800 424 9300 (USA, PR, Virgin Islands, Canada)
Tel.: 703 527 3887 (Other countries)

2 Hazard(s) identification

- **Classification of the substance or mixture**
Org. Perox. EF H242 Heating may cause a fire.
Aquatic Acute 1 H400 Very toxic to aquatic life.
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2A H319 Causes serious eye irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.
Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.
- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**

GHS02 GHS07 GHS09
- **Signal word** Warning
- **Hazard-determining components of labeling:**
Hydroxypropyl methacrylate
Dibenzoyl peroxide
- **Hazard statements**
H242 Heating may cause a fire.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H400 Very toxic to aquatic life.
H412 Harmful to aquatic life with long lasting effects.
- **Precautionary statements**
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P261 Avoid breathing vapours.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
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.
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

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Additional information:


Hilti HIT-ICE

Information pertaining to particular dangers for man and environment: A

- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H360 May damage fertility or the unborn child.
- H317 May cause an allergic skin reaction.
- H412 Harmful to aquatic life with long lasting effects.

Information pertaining to particular dangers for man and environment: B

- H242 Heating may cause a fire.
- H319 Causes serious eye irritation.
- H317 May cause an allergic skin reaction.

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

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

Dangerous components:
Dangerous components A:

41637-38-1	Ethoxylated Bisphenol A Dimethacrylate	Skin Irrit. 2, H315; Eye Irrit. 2A, H319	10-25%
6606-59-3	1,6 Hexandiol dimethacrylat	Skin Irrit. 2, H315; Eye Irrit. 2A, H319	2.5-10%
27813-02-1	Hydroxypropyl methacrylate	Eye Irrit. 2A, H319; Skin Sens. 1, H317	2.5-10%
3290-92-4	Trimethylolpropane trimethacrylate	Aquatic Chronic 2, H411; H401	2-5%

Dangerous components B:

94-36-0	dibenzoyl peroxide	Org. Perox. B, H241; Aquatic Acute 1, H400 (M=10); Eye Irrit. 2A, H319; Skin Sens. 1, H317	30-40%
14808-60-7	Quartz (SiO ₂)		20-30%

· SVHC None

4 First-aid measures
Description of first aid measures

- **General information** Immediately remove any clothing soiled by the product.
- **After inhalation** Take affected persons into fresh air and keep quiet.
- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing** 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 Fire-fighting measures
Extinguishing media
Suitable extinguishing agents

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Special hazards arising from the substance or mixture

In case of fire, the following can be released:

- Nitrogen oxides (NO_x)
- Carbon monoxide (CO)
- Carbondioxide (CO₂)

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- In certain fire conditions, traces of other toxic gases cannot be excluded.
- **Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information** Cool endangered receptacles with water spray.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Do not allow to penetrate the ground/soil.
Do not allow product to reach sewage system or any water course.
- **Methods and material for containment and cleaning up:**
Pick up mechanically.
Collect in a suitable container and dispose of as described at paragraph 13.
- **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 disposal information.

* 7 Handling and storage

- **Handling**
- **Precautions for safe handling**
The usual precautionary measures for handling chemicals should be followed.
Keep away from heat and direct sunlight.
- **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 receptacles:**
Keep in a cool, dry and dark place; 41 °F / 5 °C to 77 °F / 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 5.2**
- **Specific end use(s)** Adhesive mortar for anchor fastenings in concrete

8 Exposure controls/personal protection

- **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 creation were used as basis.
- **Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**
The usual precautionary measures for handling chemicals should be followed.
Do not eat, drink, smoke or sniff while working.
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of 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.

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· 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.

· Not suitable are gloves made of the following materials:

Natural rubber, NR

Strong gloves

Leather gloves

· Eye protection:


Tightly sealed goggles.

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

Color: Grey

· Odor: Ester-like

· Odour threshold: Not determined.

· pH-value: Not applicable.

· Change in condition
Melting point/Melting range: Not applicable

Boiling point/Boiling range: undetermined

· Flash point: Component A: > 101 °C (DIN EN ISO 1523)

Component B: not applicable

· Flammability (solid, gaseous) Not determined

· Ignition temperature: Not determined

· Decomposition temperature: Component A: not relevant

Component B: + 50 °C (SADT)

· Auto igniting: Product is not selfigniting.

· Danger of explosion: Product does not present an explosion hazard.

· Explosion limits:
Lower: Not determined

Upper: Not determined

· Vapor pressure: Not determined

· Density at 20 °C (68 °F): 1.6 g/cm³ (13.352 lbs/gal) (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.

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- **Viscosity:**
 - dynamic at 20 °C (68 °F):** ~ 55 Pas (DIN 53788)
 - kinematic at 20 °C (68 °F):** > 20 s (DIN 53211/4)
- **Solvent content:**
 - Organic solvents:** None
 - Water:** ~ 2 %
- **Other information** VOC Content: 7 g/l (EPA Method 24)

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:**
- **Primary irritant effect:**
 - **on the skin:** Irritant to skin and mucous membranes.
 - **on the eye:** Irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Irritant
- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

14808-60-7	Quartz (SiO ₂)	1
94-36-0	Dibenzoyl peroxide	3
7631-86-9	silicon dioxide, chemically prepared	3

- **NTP (National Toxicology Program)**

14808-60-7	Quartz (SiO ₂)	K
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- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

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 (fish)

- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Harmful to fish
- **Additional ecological information:**
- **General notes:**

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

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

Harmful to aquatic organisms

· 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

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

· European waste catalogue:

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

14 Transport information
· UN-Number
· DOT, TDG, IMDG, IATA UN3108

· UN proper shipping name
· DOT

Organic peroxide type E, solid

· TDG

UN3108 Organic peroxide type E, solid, ENVIRONMENTALLY

HAZARDOUS

· IMDG, IATA

ORGANIC PEROXIDE TYPE E, SOLID

· Transport hazard class(es)
· DOT

· Class

5.2 Organic peroxides

· Label

5.2

· TDG, IMDG, IATA

· Class

5.2 Organic peroxides

· Label

5.2

· Packing group
· TDG, IMDG, IATA II

· Environmental hazards:
· Marine pollutant:

No

· Special marking (TDG):

None

· Special marking (IATA):

None

· Special precautions for user

Warning: Organic peroxides

· Danger code (Kemler):

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· EMS Number:

F-J,S-R

· Transport in bulk according to Annex II of
MARPOL73/78 and the IBC Code Not applicable.

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|--------------------------|--|
| · UN "Model Regulation": | UN3108, Organic peroxide type E, solid, ENVIRONMENTALLY HAZARDOUS, 5.2, II |
| · 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.
 - Employment restrictions concerning pregnant and lactating women must be observed.
- **Chemical safety assessment:** not required.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing MSDS:**
Hilti Entwicklungsgesellschaft mbH
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D-86916 Kaufering
Tel.: +49 8191 906310
Fax: +49 8191 90176310
e-mail: anchor.hse@hilti.com
- **Contact:** Mechthild Krauter
- **Abbreviations and acronyms:**
ICAO: International Civil Aviation Organisation
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
Org. Perox. EF: Organic Peroxides, Types E, F
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1
Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3
- *** Data compared to the previous version altered.**