

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

- **Product identifier**
- **Trade name:** Hilti OneStep Anchor N 30
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the preparation**
Rock anchor for the stabilization of tunnels, galleries and the like in mining.

The Hilti OneStep-Anchor is classified as an article in accordance with section 3, paragraph 5, of the EC Chemicals Bill. The product is not subject to identification regulations under EC Directives and the Ordinance on Hazardous Materials.

- **Details of the supplier of the safety data sheet**

- **Manufacturer/Supplier:**

Hilti, Inc.
5400 South 122nd East Ave.
US-Tulsa, OK 74146
Tel +1 918 872 3000
Fax +1 918 254 0522
Customer Service:
Tel 1-800-879-8000 toll free
Fax 1-800-879-7000 toll free

- **Information department:** see section 16

- **Emergency telephone number:**

Hilti, Inc.
Tel +1 918 872 3000
Fax +1 918 254 0522

2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** May cause an allergic skin reaction.
- **Information concerning particular hazards for human and environment:**
The OneStep-Anchor presents no hazards to be particularly mentioned if used correctly.
Please note the information of this Material Safety Data Sheet.

The OneStep-Anchor forms a unit in which the constituents are contained in encapsulated form (dual foil pack) inside a steel tube. Access to the integrated foil pack and thus to the components A and B is possible only through intentional, forceful manipulation and misuse of the product.

The integrated dual foil pack contains inflammable constituents.

The inhalation of styrene vapors is harmful.

Skin contact with component B (white) may cause sensitization.

Components A and B are irritating to the eyes and skin.

- **Label elements**

- **Labelling according to EU guidelines:**

Hilti OneStep-Anchor is classified as an article in accordance with section 3, paragraph 5, of the EC Chemicals Bill. The product is not subject to identification regulations under EC Directives and the Ordinance on Hazardous Materials.

Although this product is not subject to identification regulations, we recommend that the safety suggestions are observed

The usual measures for work hygiene and the governmental regulations must be followed

- **Safety phrases:**

- 3 Keep in a cool place.
- 23 Do not breathe fumes
- 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 soap and water
- 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

- **Classification system**

- **NFPA ratings (scale 0-4)**



Health = 0
Fire = 2
Reactivity = 0

- **Other hazards**

- **Results of PBT and vPvB assessment**

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

3 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Description:**

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Rock anchor with internally integrated 2-component foil pack.
The foil pack unit contains:
Unsaturated polyester resin with styrene, filler materials
Phlegmatized dibenzoyl peroxide as a paste, filler materials

Dangerous components:

100-42-5	styrene	☒ Xn R20; ☒ Xi R36/38 R10	10-25%
94-36-0	dibenzoyl peroxide	☒ Xi R36-43; ☒ E R3; ☒ O R7	<2.5%
99-97-8	N,N-dimethyl-p-toluidine	☒ T R23/24/25 R33-52/53	<1%

· **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** 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** Rinse out mouth and then drink plenty of water.

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Sand
- **For safety reasons unsuitable extinguishing agents** Water with full jet.
- **Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Carbon monoxide (CO)
Carbondioxide (CO₂)
Nitrogen oxides (NO_x)
In certain fire conditions, traces of other toxic gases cannot be excluded.
- **Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective clothing.
Keep away from ignition sources
- **Environmental precautions:** Do not allow to penetrate the ground/soil.
- **Methods and material for containment and cleaning up:**
Pick up mechanically.
Remove remainders with solvent and liquid-binding material.
Dispose of the collected material according to regulations.
- **Reference to other sections** See Section 13 for disposal information.

7 Handling and storage

- **Handling**
- **Precautions for safe handling**
Observe expiry date.
Keep ignition sources away - Do not smoke.
Do not disassemble the OneStep bolt
- **Information about protection against explosions and fires:**
keep away from heat and direct sunlight
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.
Please attend to the local storage regulations for underground mining operations
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:**
Please attend to the local storage regulations for underground mining operations
Protect from heat and direct sunlight.
- **Storage class** 11

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· **Specific end use(s)** Rock anchor for stabilizing tunnels, galleries and the like.

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:**

100-42-5 styrene (10-25%)

PEL	Short-term value: C 200,600* ppm Long-term value: 100 ppm *5-min peak in any 3 hrs
REL	Short-term value: 425 mg/m ³ , 100 ppm Long-term value: 215 mg/m ³ , 50 ppm
TLV	Short-term value: 170 mg/m ³ , 40 ppm Long-term value: 85 mg/m ³ , 20 ppm
BEI	

· **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.

Immediately remove all soiled and contaminated clothing

· **Breathing equipment:** Not required.

· **Protection of hands:**

Protective gloves.

Use gloves of stable material (e.g. Nitrile) - if necessary tricoted to improve the wearability.

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 trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**

Tightly sealed goggles.

Face protection

· **Body protection:** Protective work clothing.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Self drilling anchor – integrated dual foil pack inside

Color: foil package

Polyester resin paste: dark green

Dibenzoyl peroxide paste: white

· **Odor:**

Aromatic

· **pH-value:**

Not applicable

· **Change in condition**

Melting point/Melting range: undetermined

Boiling point/Boiling range: undetermined

· **Flash point:**

34°C (93°F) (DIN 53213)

· **Ignition temperature:**

480°C (896°F) (Styrene)

· **Auto igniting:**

Product is not selfigniting.

· **Danger of explosion:**

Product does not present an explosion hazard.

· **Explosion limits:**

Lower: 1.7 Vol % (Styrene)

Upper: 8.2 Vol % (Styrene)

· **Vapor pressure at 20°C (68°F):** 7.1 hPa (5 mm Hg) (Styrene)

· **Density:**

Not determined

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- **Solubility in / Miscibility with Water:** Not miscible or difficult to mix

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
Non-observance of the specified storage conditions (see section 7) will lead to gradual decomposition of the dibenzoylperoxide. This will make the product unusable.
To avoid thermal decomposition do not overheat.
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known
- **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.

12 Ecological information

- **Toxicity**
- **Acquatic toxicity:** No further relevant information available.
- **Additional ecological information:**
- **According to the formulation contains the following heavy metals and compounds from the EU guideline NO. 76/464 EC:** None
- **General notes:** The product does not contain organically bounded halogens (AOX-free).
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
Unusable anchors must be collected separately. For disposal, local regulations issued by the authorities must be observed.
Consult the manufacturer if necessary.
- **Uncleaned packagings:**
- **Recommendation:**
Non contaminated packagings can be reused.
Dispose of packaging according to regulations on the disposal of packagings.

14 Transport information

- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** -
- **Remarks:** Not classified as dangerous goods in terms of the ADR
- **Maritime transport IMDG:**
- **IMDG Class:** -
- **Remarks:** Not classified as dangerous goods as per above regulation.
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -
- **Remarks:** Not classified as dangerous goods as per above regulation.
- **Special precautions for user** Not applicable.
- **Transport/Additional information:**
Not dangerous according to the above specifications.
OneStep-Anchor: Assessment BAM Nr. II.2-1061 2/02 and Nr. II.2-324/03

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15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

· Section 355 (Extremely hazardous substances):
None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):
100-42-5 styrene
94-36-0 dibenzoyl peroxide

· TSCA (Toxic Substances Control Act):
All ingredients are listed.

· Proposition 65:
· Chemicals known to cause cancer:
None of the ingredients are listed.

· Carcinogenity categories
· EPA (Environmental Protection Agency)
None of the ingredients is listed.

· IARC (International Agency for Research on Cancer)	
14808-60-7 Quartz (SiO ₂)	1
100-42-5 styrene	2B
94-36-0 dibenzoyl peroxide	3

· NTP (National Toxicology Program)	
14808-60-7 Quartz (SiO ₂)	K

· TLV (Threshold Limit Value established by ACGIH)	
14808-60-7 Quartz (SiO ₂)	A2
100-42-5 styrene	A4
94-36-0 dibenzoyl peroxide	A4

· MAK (German Maximum Workplace Concentration)	
14808-60-7 Quartz (SiO ₂)	1
100-42-5 styrene	5

· NIOSH-Ca (National Institute for Occupational Safety and Health)
14808-60-7 Quartz (SiO ₂)

· OSHA-Ca (Occupational Safety & Health Administration)
None of the ingredients is listed.

- **Markings according to EU guidelines:**
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23 Do not breathe fumes
24/25 Avoid contact with skin and eyes.
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28 After contact with skin, wash immediately with plenty of soap and water
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

- **National regulations**
- **Information about limitation of use:** Employment restrictions concerning young persons must be observed.
- **Chemical safety assessment:** A Chemical Safety Assessment has been carried out.

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.

- **Relevant phrases**
R10 Flammable.
R20 Harmful by inhalation.
R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
R3 Extreme risk of explosion by shock, friction, fire or other sources of ignition.
R33 Danger of cumulative effects.
R36 Irritating to eyes.
R36/38 Irritating to eyes and skin.
R43 May cause sensitization by skin contact.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R7 May cause fire.

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**Material Safety Data Sheet**
acc. to ISO 11014

Printing date 12/15/2010

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- **Department issuing MSDS:**
Hilti Entwicklungsgesellschaft mbH
Hiltistrasse 6
D-86916 Kaufering
Tel.: +49 8191 906310
Fax: +49 8191 906826
e-mail: monika.moench@hilti.com
- **Contact:** Monika Mönch
- * **Data compared to the previous version altered.**

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