SECTION 1: Kit identification

1.1 Product identifier

Name: CC412-1 Crack sealing compound
Product code: BU Chemicals

1.2 Details of the supplier of the Safety information for 2-Component-products

Hilti, Inc.
Legacy Tower, Suite 1000
75024 Plano - USA
T +1 9724035800
1-800-879-8000 toll free - F +1 918 254 0522

SECTION 2: General information

A SDS for each of these components is included. Please do not separate any component SDS from this cover page.

SECTION 3: Kit contents

Classification of the Product

GHS-US classification
Acute Tox. 4 (Oral) H302 - Harmful if swallowed
Acute Tox. 4 (Dermal) H312 - Harmful in contact with skin
Skin Corr. 1B H314 - Causes severe skin burns and eye damage
Eye Dam. 1 H318 - Causes serious eye damage
Skin Sens. 1 H317 - May cause an allergic skin reaction
Muta. 2 H341 - Suspected of causing genetic defects
Aquatic Acute 1 H400 - Very toxic to aquatic life
Aquatic Chronic 1 H410 - Very toxic to aquatic life with long lasting effects

Label elements

GHS-US labelling
Hazard pictograms (GHS-US)

Signal word (GHS-US) Danger
Hazardous ingredients bisphenol-A-epichlorhydrin epoxy resin (average MW = 700)
2,3-epoxypropyl o-tolyl ether
pentaethylenehexamine
benzyl alcohol

Hazard statements (GHS-US)
H302+H312 - Harmful if swallowed or in contact with skin
H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction
H341 - Suspected of causing genetic defects
H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements (GHS-US)
P201 - Obtain special instructions before use
P260 - Do not breathe vapours
P273 - Avoid release to the environment
P280 - Wear eye protection, protective clothing, protective gloves
P302+P352 - IF ON SKIN: Wash with plenty of soap and water
CC412-1 Crack sealing compound

Safety information for 2-Component-products

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313 - IF exposed or concerned: Get medical advice/attention
P333+P313 - IF skin irritation or rash occurs: Get medical advice/attention

Additional information

<table>
<thead>
<tr>
<th>Name</th>
<th>General description</th>
<th>Quantity</th>
<th>Unit</th>
<th>GHS-US classification</th>
</tr>
</thead>
</table>
| CC412, A   |                     | 1        | pcs (pieces) | Skin Irrit. 2, H315
|            |                     |          |          | Eye Irrit. 2, H319                                              |
|            |                     |          |          | Skin Sens. 1, H317                                              |
|            |                     |          |          | Muta. 2, H341                                                    |
|            |                     |          |          | Aquatic Chronic 2, H411                                          |
| CC412, B   |                     | 1        | pcs (pieces) | Acute Tox. 4 (Oral), H302                                        |
|            |                     |          |          | Acute Tox. 4 (Dermal), H312                                      |
|            |                     |          |          | Skin Corr. 1B, H314                                              |
|            |                     |          |          | Eye Dam. 1, H318                                                 |
|            |                     |          |          | Skin Sens. 1, H317                                              |
|            |                     |          |          | Aquatic Acute 1, H400                                            |
|            |                     |          |          | Aquatic Chronic 1, H410                                          |

SECTION 4: General advice

General advice
For professional users only

SECTION 5: Safe handling advice

Environmental precautions
Avoid release to the environment
Prevent entry to sewers and public waters

Storage conditions
Store in a well-ventilated place. Keep cool
Store in a dry place

Precautions for safe handling
Avoid contact with skin, eyes and clothing
Do not eat, drink or smoke when using this product
Do not handle until all safety precautions have been read and understood

Methods for cleaning up
Collect spillage
This material and its container must be disposed of in a safe way, and as per local legislation

Incompatible products
Oxidizing agent
Strong acids
Strong bases

SECTION 6: First aid measures

First-aid measures after eye contact
If eye irritation persists: Get medical advice/attention
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

First-aid measures after ingestion
Rinse mouth
Call a physician immediately

First-aid measures after inhalation
Remove person to fresh air and keep comfortable for breathing
If you feel unwell, seek medical advice

First-aid measures after skin contact
Wash skin with plenty of water
If skin irritation occurs: Get medical advice/attention

Symptoms/effects after eye contact
Causes serious eye damage

Symptoms/effects after ingestion
Burns

Symptoms/effects after skin contact
Burns
May cause an allergic skin reaction

Other medical advice or treatment
Treat symptomatically

SECTION 7: Fire fighting measures
CC412-1 Crack sealing compound
Safety information for 2-Component-products

Extinguishing agents - fire fighting instructions
- Foam, carbon dioxide (CO2) and powder
Protection during firefighting
- Do not attempt to take action without suitable protective equipment
Hazardous decomposition products in case of fire
- Toxic fumes may be released

SECTION 8: Other information
No data available
CC412, B
Safety Data Sheet

1.1. Identification
Product form: Mixture
Name: CC412, B
Product code: BU Fire Protection

1.2. Relevant identified uses of the substance or mixture and uses advised against
No additional information available

1.3. Details of the supplier of the safety data sheet
Hilti, Inc.
Legacy Tower, Suite 1000
75024 Plano - USA
T +1 9724035800
1-800-879-8000 toll free - F +1 918 254 0522

Supplier
Hilti, Inc.
Legacy Tower, Suite 1000
75024 Plano - USA
T +1 9724035800
1-800-879-8000 toll free - F +1 918 254 0522

Department issuing data specification sheet
Hilti AG
Feldkircherstraße 100
9494 Schaan - Liechtenstein
T +423 234 2111
chemicals.hse@hilti.com

1.4. Emergency telephone number
Emergency number
Chem-Trec
Tel.: 1 800 424 9300 (USA, PR, Virgin Islands, Canada)
Tel.: 703 527 3887 (Other countries)
+1 918 8723000
1-800-879-8000 toll free

2.1. Classification of the substance or mixture
GHS-US classification
Acute Tox. 4 (Oral) H302 - Harmful if swallowed
Acute Tox. 4 (Dermal) H312 - Harmful in contact with skin
Skin Corr. 1B H314 - Causes severe skin burns and eye damage
Eye Dam. 1 H318 - Causes serious eye damage
Skin Sens. 1 H317 - May cause an allergic skin reaction
Aquatic Acute 1 H400 - Very toxic to aquatic life
Aquatic Chronic 1 H410 - Very toxic to aquatic life with long lasting effects

Full text of H statements : see section 16

2.2. Label elements
GHS-US labelling
Hazard pictograms (GHS-US)

GHS05
GHS07
GHS09
Signal word (GHS-US)  
Danger

Hazard statements (GHS-US)  
H302+H312 - Harmful if swallowed or in contact with skin 
H314 - Causes severe skin burns and eye damage 
H317 - May cause an allergic skin reaction 
H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements (GHS-US)  
P260 - Do not breathe vapours 
P273 - Avoid release to the environment 
P280 - Wear eye protection, protective clothing, protective gloves 
P302+P352 - If on skin: Wash with plenty of water 
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

2.3. Other hazards  
No additional information available

2.4. Unknown acute toxicity (GHS US)  
Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance  
Not applicable

3.2. Mixture  

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
</table>
| pentaethylenehexamine | (CAS No) 4067-16-7 | 40 - 60 | Acute Tox. 4 (Oral), H302  
Acute Tox. 4 (Dermal), H312  
Skin Corr. 1B, H314  
Skin Sens. 1, H317  
Aquatic Acute 1, H400  
Aquatic Chronic 1, H410 |
| Benzy alcohol         | (CAS No) 100-51-6  | 10 - 25 | Acute Tox. 4 (Oral), H302  
Acute Tox. 4 (Dermal), H312  
Acute Tox. 4 (Inhalation), H332  
Eye Irrit. 2A, H319 |

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures  
First-aid measures after inhalation: Remove person to fresh air and keep comfortable for breathing. If you feel unwell, seek medical advice. 
First-aid measures after skin contact: Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Call a physician immediately. 
First-aid measures after eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately. 
First-aid measures after ingestion: Rinse mouth. Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed  
Symptoms/effects after skin contact: Burns. May cause an allergic skin reaction. 
Symptoms/effects after eye contact: Serious damage to eyes. 
Symptoms/effects after ingestion: Burns.

4.3. Indication of any immediate medical attention and special treatment needed  
Treat symptomatically.
SECTION 5: Firefighting measures

5.1. Extinguishing media

5.2. Special hazards arising from the substance or mixture
Reactivity: The product is non-reactive under normal conditions of use, storage and transport.

5.3. Advice for firefighters
Protection during firefighting: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel
Emergency procedures: Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe vapours.

6.1.2. For emergency responders
Protective equipment: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: “Exposure controls/personal protection”.

6.2. Environmental precautions
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
For containment: Collect spillage.
Methods for cleaning up: Take up liquid spill into absorbent material.
Other information: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections
For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling: Ensure good ventilation of the work station. Avoid contact with skin and eyes. Do not breathe vapours. Wear personal protective equipment.
Hygiene measures: Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions: Store locked up. Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Control Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>pentaethylenehexamine (4067-16-7)</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Benzyl alcohol (100-51-6)</td>
<td>Not applicable</td>
<td></td>
</tr>
</tbody>
</table>
8.2. Exposure controls

Appropriate engineering controls
Ensure good ventilation of the work station.

Personal protective equipment
Protective clothing. Gloves. Safety glasses.

Skin and body protection
Wear suitable protective clothing.

Respiratory protection
In case of insufficient ventilation, wear suitable respiratory equipment.

Environmental exposure controls
Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Pasty</td>
</tr>
<tr>
<td>Colour</td>
<td>Black</td>
</tr>
<tr>
<td>Odour</td>
<td>Amine-like</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>Not determined</td>
</tr>
<tr>
<td>Melting point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>200 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 60 °C</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>&lt; 0.9 mm Hg</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.3 - 1.4</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility</td>
<td>No data available</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>120 - 150 cP</td>
</tr>
</tbody>
</table>

9.2. Other information
No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity
The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability
Stable under normal conditions.
10.3. Possibility of hazardous reactions
No additional information available

10.4. Conditions to avoid
Heat.

10.5. Incompatible materials

10.6. Hazardous decomposition products
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

<table>
<thead>
<tr>
<th>Substances</th>
<th>Oral: Harmful if swallowed. Dermal: Harmful in contact with skin.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE US (oral)</td>
<td>910.112 mg/kg bodyweight</td>
</tr>
<tr>
<td>ATE US (dermal)</td>
<td>1666.667 mg/kg bodyweight</td>
</tr>
<tr>
<td>pentaethylenehexamine (4067-16-7)</td>
<td></td>
</tr>
<tr>
<td>ATE US (oral)</td>
<td>500.000 mg/kg bodyweight</td>
</tr>
<tr>
<td>ATE US (dermal)</td>
<td>1100.000 mg/kg bodyweight</td>
</tr>
<tr>
<td>Benzyl alcohol (100-51-6)</td>
<td></td>
</tr>
<tr>
<td>LD50 oral rat</td>
<td>1620 mg/kg</td>
</tr>
<tr>
<td>LC50 inhalation rat (mg/l)</td>
<td>&gt; 4178 mg/m³</td>
</tr>
<tr>
<td>ATE US (oral)</td>
<td>1620.000 mg/kg bodyweight</td>
</tr>
<tr>
<td>ATE US (dermal)</td>
<td>1100.000 mg/kg bodyweight</td>
</tr>
<tr>
<td>ATE US (gases)</td>
<td>4500.000 ppmv/4h</td>
</tr>
<tr>
<td>ATE US (vapours)</td>
<td>11.000 mg/l/4h</td>
</tr>
<tr>
<td>ATE US (dust,mist)</td>
<td>1.500 mg/l/4h</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation
Causes severe skin burns and eye damage.

Serial 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

Specific target organ toxicity (single exposure)
Not classified

Specific target organ toxicity (repeated exposure)
Not classified

Aspiration hazard
Not classified

Symptoms/effects after skin contact
Burns. May cause an allergic skin reaction.

Symptoms/effects after eye contact
Serious damage to eyes.

Symptoms/effects after ingestion
Burns.
SECTION 12: Ecological information

12.1. Toxicity
Ecology - general
Very toxic to aquatic life with long lasting effects.

<table>
<thead>
<tr>
<th>pentaethylenehexamine (4067-16-7)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>180 mg/l (Poecilia reticulata)</td>
</tr>
<tr>
<td>Threshold limit algae 1</td>
<td>0.7 mg/l (Selenastrum capricornutum; Biomass)</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>pentaethylenehexamine (4067-16-7)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistence and degradability</td>
<td>Not readily biodegradable in water.</td>
</tr>
</tbody>
</table>

12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>pentaethylenehexamine (4067-16-7)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Log Pow</td>
<td>-1.6 (QSAR)</td>
</tr>
<tr>
<td>Bioaccumulative potential</td>
<td>Bioaccumulation: not applicable.</td>
</tr>
</tbody>
</table>

12.4. Mobility in soil
No additional information available

12.5. Other adverse effects
Effect on the global warming
No known effects from this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Waste treatment methods
Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

<table>
<thead>
<tr>
<th>ADR</th>
<th>IMDG</th>
<th>IATA</th>
<th>RID</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1. UN number</td>
<td>2735</td>
<td>2735</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.2. UN proper shipping name</td>
<td>AMINES, LIQUID, CORROSIVE, N.O.S.</td>
<td>AMINES, LIQUID, CORROSIVE, N.O.S.</td>
<td>Amines, liquid, corrosive, n.o.s.</td>
</tr>
</tbody>
</table>

Transport document description

| UN 2735 AMINES, LIQUID, CORROSIVE, N.O.S., 8, III, (E) | UN 2735 AMINES, LIQUID, CORROSIVE, N.O.S., 8, III |

14.3. Transport hazard class(es)

| 8 | 8 | 8 | 9 |
**CC412, B**  
Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

---

### 14.4. Packing group

<table>
<thead>
<tr>
<th>ADR</th>
<th>IMDG</th>
<th>IATA</th>
<th>RID</th>
</tr>
</thead>
<tbody>
<tr>
<td>III</td>
<td>III</td>
<td>III</td>
<td>III</td>
</tr>
</tbody>
</table>

### 14.5. Environmental hazards

<table>
<thead>
<tr>
<th></th>
<th>Dangerous for the environment :</th>
<th>Dangerous for the environment :</th>
<th>Dangerous for the environment :</th>
<th>Dangerous for the environment :</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Marine pollutant : Yes</td>
<td>Marine pollutant : Yes</td>
<td>Marine pollutant : Yes</td>
<td>Marine pollutant : Yes</td>
</tr>
</tbody>
</table>

ADR 5.2.1.8.1 derogation applies (quantity of liquids ≤ 5 litres or net mass of solids ≤ 5 kg)

No supplementary information available

---

### 14.6. Special precautions for user

- **Overland transport**

  - Classification code (ADR): C7
  - Special provisions (ADR): 274
  - Limited quantities (ADR): 5 L
  - Packing instructions (ADR): P001, IBC03, LP01, R001
  - Mixed packing provisions (ADR): MP19

---

- **Transport by sea**

  - Special provisions (IMDG): 223, 274
  - Limited quantities (IMDG): 5 L
  - EmS-No. (Fire): F-A
  - EmS-No. (Spillage): S-B
  - Stowage category (IMDG): A
  - Stowage and segregation (IMDG): ‘Separated from’ acids.
  - MFAG-No: 153

---

- **Air transport**

  - PCA packing instructions (IATA): 852
  - PCA max net quantity (IATA): 5L
  - CAO packing instructions (IATA): 856
  - Special provisions (IATA): A3

---

- **Rail transport**

  - Special provisions (RID): 274
  - Limited quantities (RID): 5L
  - Packing instructions (RID): P001, IBC03, LP01, R001
  - 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. US Federal regulations
CC412, B
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

<table>
<thead>
<tr>
<th>Benzyl alcohol (100-51-6)</th>
<th>Listed on the United States TSCA (Toxic Substances Control Act) inventory</th>
</tr>
</thead>
</table>

15.2. International regulations

CANADA
No additional information available

EU-Regulations
No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

<table>
<thead>
<tr>
<th>Acute Tox. 4 (Oral)</th>
<th>H302</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. 4 (Dermal)</td>
<td>H312</td>
</tr>
<tr>
<td>Skin Corr. 1B</td>
<td>H314</td>
</tr>
<tr>
<td>Eye Dam. 1</td>
<td>H316</td>
</tr>
<tr>
<td>Skin Sens. 1</td>
<td>H317</td>
</tr>
<tr>
<td>Aquatic Acute 1</td>
<td>H400</td>
</tr>
<tr>
<td>Aquatic Chronic 1</td>
<td>H410</td>
</tr>
</tbody>
</table>

Full text of hazard classes and H-statements: see section 16

National regulations
No additional information available

15.3. US State regulations
No additional information available

SECTION 16: Other information

Revision date 03/07/2017

Full text of H-statements:

<table>
<thead>
<tr>
<th>H302</th>
<th>Harmful if swallowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>H312</td>
<td>Harmful in contact with skin</td>
</tr>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage</td>
</tr>
<tr>
<td>H317</td>
<td>May cause an allergic skin reaction</td>
</tr>
<tr>
<td>H318</td>
<td>Causes serious eye damage</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>H332</td>
<td>Harmful if inhaled</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life</td>
</tr>
<tr>
<td>H410</td>
<td>Very toxic to aquatic life with long lasting effects</td>
</tr>
</tbody>
</table>

SDS_US_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.
CC412, A
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Date of issue: 01/12/2016 Revision date: 01/12/2016 Supersedes: 03/07/2017 Version: 4.0

SECTION 1: Identification

1.1. Identification
Product form Mixture
Name CC412, A
Product code BU Fire Protection

1.2. Relevant identified uses of the substance or mixture and uses advised against
No additional information available

1.3. Details of the supplier of the safety data sheet
Hilti, Inc.
Legacy Tower, Suite 1000
75024 Plano - USA
T +1 9724035800
1-800-879-8000 toll free - F +1 918 254 0522

Supplier
Hilti, Inc.
Legacy Tower, Suite 1000
75024 Plano - USA
T +1 9724035800
1-800-879-8000 toll free - F +1 918 254 0522

Department issuing data specification sheet
Hilti AG
Feldkircherstraße 100
9494 Schaan - Liechtenstein
T +423 234 2111
chemicals.hse@hilti.com

1.4. Emergency telephone number
Emergency number
Chem-Trec
Tel.: 1 800 424 9300 (USA, PR, Virgin Islands, Canada)
Tel.: 703 527 3887 (Other countries)
+1 918 8723000
1-800-879-8000 toll free

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
GHS-US classification
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
Muta. 2 H341 - Suspected of causing genetic defects
Aquatic Chronic 2 H411 - Toxic to aquatic life with long lasting effects
Full text of H statements: see section 16

2.2. Label elements
GHS-US labelling
Hazard pictograms (GHS-US)

Signal word (GHS-US) Warning
Hazard statements (GHS-US) H315 - Causes skin irritation
SECTION 3: Composition/information on ingredients

### 3.1. Substance

Not applicable

### 3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bisphenol-A-Epichlorhydrin epoxy resin</td>
<td>(CAS No) 25068-38-6</td>
<td>40-60</td>
<td>Skin Irrit. 2, H315</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(H319) Causes serious eye irritation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(H341) Suspected of causing genetic defects</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(H411) Toxic to aquatic life with long lasting effects</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,3-epoxypropyl o-tolyl ether</td>
<td>(CAS No) 2210-79-9</td>
<td>10-25</td>
<td>Muta. 2, H341</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(H315) Skin Irrit. 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(H317) Skin Sens. 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(H411) Aquatic Chronic 2, H411</td>
</tr>
</tbody>
</table>

Full text of H-statements: see section 16

SECTION 4: First aid measures

### 4.1. Description of first aid measures

- **First-aid measures general**: IF exposed or concerned: Get medical advice/attention.
- **First-aid measures after inhalation**: Remove person to fresh air and keep comfortable for breathing. If you feel unwell, seek medical advice.
- **First-aid measures after skin contact**: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
- **First-aid measures after eye contact**: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- **First-aid measures after ingestion**: Call a poison center or a doctor if you feel unwell.

### 4.2. Most important symptoms and effects, both acute and delayed

- **Symptoms/effects after skin contact**: Irritation. May cause an allergic skin reaction.
- **Symptoms/effects after eye contact**: Eye irritation.

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

Treat symptomatically.

SECTION 5: Firefighting measures

### 5.1. Extinguishing media

- **Suitable extinguishing media**: Water spray. Dry powder. Foam.
5.2. Special hazards arising from the substance or mixture
Reactivity
The product is non-reactive under normal conditions of use, storage and transport.

5.3. Advice for firefighters
Protection during firefighting
Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
6.1.1. For non-emergency personnel
Emergency procedures
Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust.

6.1.2. For emergency responders
Protective equipment
Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
Methods for cleaning up
Mechanically recover the product.
Other information
Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections
For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling
Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid contact with skin and eyes. Wear personal protective equipment. Avoid breathing dust.

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

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions
Store locked up. Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Substance</th>
<th>Control Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bisphenol-A-Epichlorhydrin Epoxy resin Average MW &lt; 700 (25068-38-6)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>2,3-epoxypropyl o-tolyl ether (2210-79-9)</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

8.2. Exposure controls
Appropriate engineering controls
Ensure good ventilation of the work station.
CC412, A
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Personal protective equipment

Safety glasses. Protective clothing. Gloves.

Hand protection
Gloves. EN 374.

Eye protection
Safety glasses. EN 166. EN 170.

Skin and body protection
Wear suitable protective clothing.

Respiratory protection
Wear respiratory protection. Filter AX (brown).

Environmental exposure controls
Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state
Liquid

Appearance
Pasty.

Colour
Beige

Odour
mild

Odour threshold
No data available

pH
No data available

Melting point
No data available

Freezing point
Not applicable

Boiling point
No data available

Flash point
> 60 °C Not applicable

Relative evaporation rate (butylacetate=1)
No data available

Flammability (solid, gas)
No data available

Explosive limits
Not applicable

Explosive properties
No data available

Oxidising properties
No data available

Vapour pressure
No data available

Relative density
No data available

Relative vapour density at 20 °C
No data available

Density
1.38 kg/l

Solubility
insoluble in water.

Log Pow
No data available

Auto-ignition temperature
Not applicable

Decomposition temperature
No data available

Viscosity
No data available

Viscosity, kinematic
Not applicable

Viscosity, dynamic
25000 - 30000 mPa.s

9.2. Other information

VOC content
0 %

SECTION 10: Stability and reactivity

10.1. Reactivity
The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability
Stable under normal conditions.
10.3. Possibility of hazardous reactions
No additional information available.

10.4. Conditions to avoid
Heat.

10.5. Incompatible materials

10.6. Hazardous decomposition products
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity
Not classified

<table>
<thead>
<tr>
<th>Bisphenol-A-Epichlorhydrin Epoxy resin Average MW &lt; 700 (25068-38-6)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LD50 oral rat</strong></td>
</tr>
<tr>
<td><strong>LD50 dermal rat</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2,3-epoxypropyl o-tolyl ether (2210-79-9)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LD50 oral rat</strong></td>
</tr>
<tr>
<td><strong>LD50 dermal rat</strong></td>
</tr>
<tr>
<td><strong>LC50 inhalation rat (mg/l)</strong></td>
</tr>
<tr>
<td><strong>ATE US (vapours)</strong></td>
</tr>
<tr>
<td><strong>ATE US (dust,mist)</strong></td>
</tr>
</tbody>
</table>

Skin corrosion/irritation
Causes skin irritation.

Serious eye damage/irritation
Causes serious eye irritation.

Respiratory or skin sensitisation
May cause an allergic skin reaction.

Germ cell mutagenicity
Suspected of causing genetic defects.

Germ cell mutagenicity
Suspected of causing genetic defects.

Carcinogenicity
Not classified

Reproductive toxicity
Not classified

Specific target organ toxicity (single exposure)
Not classified

Specific target organ toxicity (repeated exposure)
Not classified

Aspiration hazard
Not classified

Symptoms/effects after skin contact
Irritation. May cause an allergic skin reaction.

Symptoms/effects after eye contact
Eye irritation.

SECTION 12: Ecological information

12.1. Toxicity
Ecology - general
Harmful to aquatic life with long lasting effects.

<table>
<thead>
<tr>
<th>Bisphenol-A-Epichlorhydrin Epoxy resin Average MW &lt; 700 (25068-38-6)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LC50 fish 1</strong></td>
</tr>
<tr>
<td><strong>EC50 Daphnia 1</strong></td>
</tr>
<tr>
<td><strong>LC50 fish 2</strong></td>
</tr>
<tr>
<td><strong>Threshold limit algae 1</strong></td>
</tr>
</tbody>
</table>
Bisphenol-A-Epichlorhydrin Epoxy resin Average MW < 700 (25068-38-6)

Threshold limit algae 2
4.2 mg/l (72 h; Scenedesmus sp.)

2,3-epoxypropyl o-tolyl ether (2210-79-9)

LC50 fish 1
1 - 10 mg/l (Pisces)

EC50 Daphnia 1
1 - 10 mg/l (Invertebrata)

12.2. Persistence and degradability

Bisphenol-A-Epichlorhydrin Epoxy resin Average MW < 700 (25068-38-6)
Persistence and degradability
Not readily biodegradable in water. Hydrolysis in water. Low potential for adsorption in soil.

2,3-epoxypropyl o-tolyl ether (2210-79-9)
Persistence and degradability

12.3. Bioaccumulative potential

Bisphenol-A-Epichlorhydrin Epoxy resin Average MW < 700 (25068-38-6)

BCF other aquatic organisms 1
3 - 31

Log Pow
>= 2.918 (Experimental value: EU Method A.8: Partition Coefficient; 25 °C)

Bioaccumulative potential
Low potential for bioaccumulation (BCF < 500).

2,3-epoxypropyl o-tolyl ether (2210-79-9)

Log Pow
2.16 (Estimated value)

Bioaccumulative potential
Low potential for bioaccumulation (Log Kow < 4).

12.4. Mobility in soil

Bisphenol-A-Epichlorhydrin Epoxy resin Average MW < 700 (25068-38-6)

Surface tension
0.0 587-0.0589,20 °C

12.5. Other adverse effects

Effect on the global warming
No known effects from this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods
Dispose of contents/container in accordance with licensed collector’s sorting instructions.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

<table>
<thead>
<tr>
<th>ADR</th>
<th>IMDG</th>
<th>IATA</th>
<th>RID</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1. UN number</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3077</td>
<td>Not applicable</td>
<td>3077</td>
<td>3077</td>
</tr>
</tbody>
</table>

14.2. UN proper shipping name

| ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. | Not applicable | Environmentally hazardous substance, solid, n.o.s. | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. |

Transport document description

UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., 9, III, (E)
## ADR | IMDG | IATA | RID
--- | --- | --- | ---
### 14.3. Transport hazard class(es)
9 | Not applicable | 9 | 9

### 14.4. Packing group
III | Not applicable | III | III

### 14.5. Environmental hazards
<table>
<thead>
<tr>
<th>Dangerous for the environment</th>
<th>Dangerous for the environment</th>
<th>Dangerous for the environment</th>
<th>Dangerous for the environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Marine pollutant: Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADR 5.2.1.8.1 derogation applies (quantity of liquids ≤ 5 litres or net mass of solids ≤ 5 kg)</td>
<td>No supplementary information available</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 14.6. Special precautions for user

#### - Overland transport

<table>
<thead>
<tr>
<th>Classification code (ADR)</th>
<th>M7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special provisions (ADR)</td>
<td>274, 335, 601, 375</td>
</tr>
<tr>
<td>Limited quantities (ADR)</td>
<td>5kg</td>
</tr>
<tr>
<td>Packing instructions (ADR)</td>
<td>P002, IBC08, LP02, R001</td>
</tr>
<tr>
<td>Mixed packing provisions (ADR)</td>
<td>MP10</td>
</tr>
<tr>
<td>Orange plates</td>
<td></td>
</tr>
</tbody>
</table>

| Tunnel restriction code (ADR) | E |

#### - Transport by sea

| MFAG-No | 171 |

#### - Air transport

| PCA packing instructions (IATA) | 956 |
| PCA max net quantity (IATA)     | 400kg |
| CAO packing instructions (IATA) | 956 |
| Special provisions (IATA)       | A97, A158, A179, A197 |

#### - Rail transport

| Special provisions (RID) | 274, 335, 601 |
| Limited quantities (RID) | 5kg |
| Packing instructions (RID) | P002, IBC08, LP02, R001 |
| 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. US Federal regulations
Bisphenol-A-Epichlorhydrin Epoxy resin Average MW < 700 (25068-38-6)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

**15.2. International regulations**

**CANADA**
No additional information available

**EU-Regulations**
No additional information available

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

<table>
<thead>
<tr>
<th>Skin Irrit.</th>
<th>Eye Irrit.</th>
<th>Skin Sens.</th>
<th>Muta.</th>
<th>Aquatic Chronic</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

H315 Causes skin irritation
H317 May cause an allergic skin reaction
H319 Causes serious eye irritation
H341 Suspected of causing genetic defects
H411 Toxic to aquatic life with long lasting effects

Full text of hazard classes and H-statements : see section 16

**National regulations**
No additional information available

**15.3. US State regulations**
No additional information available

**SECTION 16: Other information**

Revision date 01/12/2016

Full text of H-statements:

<table>
<thead>
<tr>
<th>H315</th>
<th>Causes skin irritation</th>
</tr>
</thead>
<tbody>
<tr>
<td>H317</td>
<td>May cause an allergic skin reaction</td>
</tr>
<tr>
<td>H319</td>
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<tr>
<td>H341</td>
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</tr>
</tbody>
</table>

SDS_US_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.