HVU2 M8 - M30
Safety Data Sheet

Date of issue: 05/07/2019
Revision date: 05/07/2019
Version: 1.0

SECTION 1: Identification

1.1. Identification
Product form: Mixture
Generic name: HVU2 M8 - M30
Product code: BU Anchor

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/mixture: Adhesive anchor capsule for anchor fastening in concrete

1.3. Details of the supplier of the safety data sheet
Supplier: Hilti, Inc.
Legacy Tower, Suite 1000
7250 Dallas Parkway
TX 75024 Plano - USA
T +1 9724035800
1-800-979-8000 toll free - F +1 918 254 0522

Department issuing data specification sheet: Hilti Entwicklungsgesellschaft mbH
Hiltistraße 6
86916 Kaufering - Deutschland
T +49 8191 906876
anchor.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 Sens. 1: H317 - May cause an allergic skin reaction.
Repr. 1B: H360 - May damage fertility or the unborn child.
Acute Aquatic 2: H401 - Toxic to aquatic life
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): Danger
Hazard statements (GHS US):
H317 - May cause an allergic skin reaction.
H360 - May damage fertility or the unborn child.
H401 - Toxic to aquatic life
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (GHS US):
P280 - Wear eye protection, protective clothing, protective gloves.
P262 - Do not get in eyes, on skin, or on clothing.
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.
P302+P352 - If on skin: Wash with plenty of water

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. Substances
Not applicable

3.2. Mixtures

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum oxide (Al2O3)</td>
<td>(CAS-No.) 1344-28-1</td>
<td>&gt;=80</td>
<td>Not classified</td>
</tr>
<tr>
<td>2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol</td>
<td>(CAS-No.) 27813-02-1</td>
<td>5 - 10</td>
<td>Eye Irrit. 2A, H319, Skin Sens. 1, H317</td>
</tr>
<tr>
<td>2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester</td>
<td>(CAS-No.) 2082-81-7</td>
<td>2.5 - 5</td>
<td>Skin Sens. 1B, H317</td>
</tr>
<tr>
<td>dicyclohexyl phthalate</td>
<td>(CAS-No.) 84-61-7</td>
<td>1 - 2.5</td>
<td>Skin Sens. 1, H317, Repr. 1B, H360</td>
</tr>
<tr>
<td>1,1'-(p-tolylimino)diopropan-2-ol</td>
<td>(CAS-No.) 38668-48-3</td>
<td>0.1 - 1</td>
<td>Acute Tox. 2 (Oral), H300, Eye Irrit. 2A, H319</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
Take off immediately all contaminated clothing. Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation
Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact
Wash contaminated clothing before reuse. Wash with plenty of water/.... If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact
Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persists.

First-aid measures after ingestion

4.2. Most important symptoms and effects (acute and delayed)
Symptoms/effects after skin contact
May cause an allergic skin reaction.

Symptoms/effects after eye contact
May cause severe irritation.

4.3. Immediate medical attention and special treatment, if necessary

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media
HVU2 M8 - M30
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Unsuitable extinguishing media
Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture
No additional information available

5.3. Advice for firefighters
Firefighting instructions
Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protection during firefighting
Self-contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
General measures
Spilled material may present a slipping hazard.
6.1.1. For non-emergency personnel
Emergency procedures
Evacuate unnecessary personnel.

6.1.2. For emergency responders
Protective equipment
Use personal protective equipment as required. Equip cleanup crew with proper protection.
Emergency procedures
Ventilate area.

6.2. Environmental precautions
Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up
For containment
Collect spillage.
Methods for cleaning up
This material and its container must be disposed of in a safe way, and as per local legislation. Mechanically recover the product. Store away from other materials.
Other information
Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections
For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling
Wear personal protective equipment. Avoid contact with skin and eyes. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.
Hygiene measures
Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions
Keep cool. Protect from sunlight. Expiry date: See date printed on box and capsule. Do not use if expiry date has been exceeded!
Incompatible products
Strong bases. Strong acids.
Incompatible materials
Sources of ignition. Direct sunlight.
Storage temperature
-20 - 25 °C
Heat and ignition sources
Keep away from heat and direct sunlight.
SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Compound</th>
<th>ACGIH TWA (mg/m³)</th>
<th>Remark (ACGIH)</th>
<th>OSHA PEL (TWA) (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum oxide (Al2O3) (1344-28-1)</td>
<td>Not applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dibenzoyl peroxide (94-36-0)</td>
<td>ACGIH TWA (mg/m³)</td>
<td>5 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Dicyclohexyl phthalate (84-61-7)</td>
<td>Not applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)</td>
<td>Not applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-Propenoic acid, 2-methyl-, 1,4-butandiyi ester (2082-81-7)</td>
<td>Not applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,1'-(p-tolylimino)dipropan-2-ol (38668-48-3)</td>
<td>Not applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.2. Exposure controls


Hand protection: Wear protective gloves. The permeation time is not the maximum wearing time! Generally speaking, it must be reduced. Contact with either mixtures of substances or different substances may shorten the protective function's effective duration.

Eye protection: Wear security glasses which protect from splashes.

Skin and body protection: Wear suitable protective clothing.

Environmental exposure controls: Avoid release to the environment.

Consumer exposure controls: Avoid contact during pregnancy/while nursing.

Other information: Do not eat, drink or smoke during use.

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>Solid</td>
</tr>
<tr>
<td>Appearance</td>
<td>foil capsule.</td>
</tr>
<tr>
<td>Colour</td>
<td>resin: yellowish liquid hardener: white powder</td>
</tr>
<tr>
<td>Odour</td>
<td>characteristic</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
</tbody>
</table>
**HVU2 M8 - M30**

**Safety Data Sheet**

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

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**Boiling point**
No data available

**Flash point**
> 101 °C (DIN EN ISO 1523)

**Relative evaporation rate (butylacetate=1)**
No data available

**Flammability (solid, gas)**
No data available

**Explosive limits**
No data available

**Explosive properties**
No data available

**Oxidising properties**
No data available

**Vapour pressure**
0.1 hPa

**Relative density**
No data available

**Relative vapour density at 20 °C**
No data available

**Density**
2.95 g/cm³

**Solubility**
Insoluble in water.

**Log Pow**
No data available

**Auto-ignition temperature**
No data available

** Decomposition temperature**
No data available

**Viscosity**
20 Seconds (ISO 2431)

**Viscosity, dynamic**
No data available

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**9.2. Other information**

| SADT | 55 °C (Peroxide) |

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**SECTION 10: Stability and reactivity**

**10.1. Reactivity**
No additional information available

**10.2. Chemical stability**
Stable under normal conditions.

**10.3. Possibility of hazardous reactions**
No additional information available.

**10.4. Conditions to avoid**
Direct sunlight. Extremely high or low temperatures.

**10.5. Incompatible materials**
Strong acids. Strong bases.

**10.6. Hazardous decomposition products**
Fume. Carbon monoxide. Carbon dioxide. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

| Acute toxicity | Not classified |

| Aluminum oxide (Al2O3) (1344-28-1) |
|-----------------|----------------|
| LD50 oral rat   | > 15900 mg/kg   |
| LC50 inhalation rat (mg/l) | 7.6 mg/l |
Aluminum oxide (Al2O3) (1344-28-1)
ATE US (vapours) 7.6 mg/l/4h
ATE US (dust,mist) 7.6 mg/l/4h
dicyclohexyl phthalate (84-61-7)
LD50 oral rat 41400 mg/kg (Rat)
LD50 dermal rabbit > 7940 mg/kg (Rabbit)
ATE US (oral) 41400 mg/kg bodyweight
2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)
LD50 oral rat > 5000 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Literature study; >=2000 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rabbit >= 5000 mg/kg bodyweight (Rabbit; Experimental value)
2-Propenoic acid, 2-methyl, 1,4-butanediyl ester (2082-81-7)
LD50 oral rat 10066 mg/kg
LD50 dermal rat > 3000 mg/kg
ATE US (oral) 10066 mg/kg bodyweight
1,1'-(p-tolylimino)dipropan-2-ol (38668-48-3)
LD50 oral rat 25 mg/kg
LD50 dermal rat > 2000 mg/kg
ATE US (oral) 25 mg/kg bodyweight
Skin corrosion/irritation Not classified
Serious eye damage/irritation Not classified
Respiratory or skin sensitisation May cause an allergic skin reaction.
Germ cell mutagenicity Not classified
Carcinogenicity Not classified
dibenzoyle peroxide (94-36-0)
IARC group 3 - Not classifiable
Reproductive toxicity May damage fertility or the unborn child.
STOT-single exposure Not classified
STOT-repeated exposure Not classified
Aspiration hazard Not classified
Symptoms/effects after skin contact May cause an allergic skin reaction.
Symptoms/effects after eye contact May cause severe irritation.

SECTION 12: Ecological information

12.1. Toxicity
dibenzoyle peroxide (94-36-0)
EC50 Daphnia 1 0.11 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)
LC50 fish 2 0.0602 mg/l (96h; Oncorhynchus mykiss; ECHA)
NOEC (acute) 0.0316 mg/l (96h; Oncorhynchus mykiss; ECHA)
NOEC chronic fish < 0.001
dicyclohexyl phthalate (84-61-7)
LC50 fish 1 > 10000 mg/l (96 h; Brachydanio rerio; Static system)
LC50 other aquatic organisms 1 1.04 mg/l
NOEC (acute) > 2 mg/l
dicyclohexyl phthalate (84-61-7)
NOEC chronic crustacea 0.181 mg/l

2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)
LC50 fish 1 493 mg/l (48 h; Leuciscus idus; GLP)
EC50 Daphnia 1 > 143 mg/l (48 h; Daphnia magna; GLP)
Threshold limit algae 1 > 97.2 mg/l (72 h; Pseudokirchneriella subcapitata; GLP)
Threshold limit algae 2 > 97.2 mg/l (72 h; Pseudokirchneriella subcapitata; GLP)

2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester (2082-81-7)
LC50 other aquatic organisms 1 9.79 mg/l
NOEC (acute) 7.51 mg/l
NOEC (chronic) 20 mg/l

1,1'-(p-tolylimino)dipropan-2-ol (38668-48-3)
LC50 fish 1 17 mg/l
LC50 other aquatic organisms 1 245 mg/l
EC50 Daphnia 1 28.8 mg/l
NOEC (acute) 57.8 mg/l

12.2. Persistence and degradability

dibenzoyl peroxide (94-36-0)
Persistence and degradability Readily biodegradable in water. Not established. May cause long-term adverse effects in the environment.
dicyclohexyl phthalate (84-61-7)
Persistence and degradability Readily biodegradable in water. Forming sediments in water.
ThOD 2.376 g O₂/g substance

2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)
Persistence and degradability Readily biodegradable in water.

2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester (2082-81-7)
Biodegradation 84 %

12.3. Bioaccumulative potential

dibenzoyl peroxide (94-36-0)
Log Pow 3.71
Bioaccumulative potential Low bioaccumulation potential (Log Kow < 4).
dicyclohexyl phthalate (84-61-7)
BCF fish 1 640 (Pisces)
Log Pow 3 - 6.2
Bioaccumulative potential High potential for bioaccumulation (Log Kow > 5).

2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)
BCF fish 1 <= 100
BCF fish 2 3.2 Quantitative structure-activity relationship (QSAR)
Log Pow 0.97 (OECD 102 method)
Bioaccumulative potential Low bioaccumulation potential (BCF < 500).

1,1'-(p-tolylimino)dipropan-2-ol (38668-48-3)
BCF fish 1
Log Pow 3.1

12.4. Mobility in soil
dibenzoyl peroxide (94-36-0)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log Koc</td>
<td>3.8 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value)</td>
</tr>
<tr>
<td>Ecology - soil</td>
<td>Adsorbs into the soil.</td>
</tr>
</tbody>
</table>

2-Propanoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecology - soil</td>
<td>Low potential for adsorption in soil.</td>
</tr>
</tbody>
</table>

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional legislation (waste)</td>
<td>Disposal must be done according to official regulations.</td>
</tr>
<tr>
<td>Product/Packaging disposal recommendations</td>
<td>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. Packaging contaminated by the product : Dispose in a safe manner in accordance with local/national regulations.</td>
</tr>
<tr>
<td>Ecology - waste materials</td>
<td>Avoid release to the environment.</td>
</tr>
</tbody>
</table>

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>Not regulated</td>
<td>Not regulated</td>
<td>Not regulated</td>
</tr>
<tr>
<td>14.2. UN proper shipping name</td>
<td>Not regulated</td>
<td>Not regulated</td>
<td>Not regulated</td>
</tr>
<tr>
<td>14.3. Transport hazard class(es)</td>
<td>Not regulated</td>
<td>Not regulated</td>
<td>Not regulated</td>
</tr>
<tr>
<td>14.4. Packing group</td>
<td>Not regulated</td>
<td>Not regulated</td>
<td>Not regulated</td>
</tr>
<tr>
<td>14.5. Environmental hazards</td>
<td>Not regulated</td>
<td>Not regulated</td>
<td>Not regulated</td>
</tr>
</tbody>
</table>

- Environmentally hazardous substances 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

- Transport by sea
No data available

- Air transport
No data available
14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

<table>
<thead>
<tr>
<th>Chemical (CAS-No.)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum oxide (Al2O3) (1344-28-1)</td>
<td>&gt;= 80%</td>
</tr>
<tr>
<td>dibenzoyl peroxide (94-36-0)</td>
<td>1 - 2.5%</td>
</tr>
</tbody>
</table>

15.2. International regulations

CANADA

<table>
<thead>
<tr>
<th>Chemical (CAS-No.)</th>
<th>List</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum oxide (Al2O3) (1344-28-1)</td>
<td>Listed on the Canadian DSL (Domestic Substances List)</td>
</tr>
<tr>
<td>dibenzoyl peroxide (94-36-0)</td>
<td>Listed on the Canadian DSL (Domestic Substances List)</td>
</tr>
<tr>
<td>dicyclohexyl phthalate (84-61-7)</td>
<td>Listed on the Canadian DSL (Domestic Substances List)</td>
</tr>
</tbody>
</table>

2-Propanoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)

Listed on the Canadian DSL (Domestic Substances List)

2-Propanoic acid, 2-methyl-, 1,4-butanediyl ester (2082-81-7)

Listed on the Canadian DSL (Domestic Substances List)

1,1'-(p-tolylimino)dipropan-2-ol (38668-48-3)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm
### Component

<table>
<thead>
<tr>
<th>Component</th>
<th>State or local regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>dibenzoyl peroxide(94-36-0)</td>
<td></td>
</tr>
<tr>
<td>dicyclohexyl phthalate(84-61-7)</td>
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<tr>
<td>1,1’-(p-tolylimino)dipropan-2-ol(38668-48-3)</td>
<td></td>
</tr>
</tbody>
</table>

### SECTION 16: Other information

**Revision date** 05/07/2019  
**Other information** None.

Full text of H-statements:

- **H241** Heating may cause a fire or explosion.  
- **H300** Fatal if swallowed.  
- **H317** May cause an allergic skin reaction.  
- **H319** Causes serious eye irritation.  
- **H360** May damage fertility or the unborn child.  
- **H401** Toxic to aquatic life  
- **H411** Toxic to aquatic life with long lasting effects.

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.