

HVU M8 - M39

Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

Date of issue: 30/01/2019

Version: 9.1

Revision date: 30/01/2019

Supersedes: 13/11/2017

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

1.1. Product identifier

| | |
|--------------|--------------|
| Product form | Mixture |
| Generic name | HVU M8 - M39 |
| 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 (Hong Kong) Ltd.
701-704, 7/F, Tower A, Manulife Financial Centre
223 Wai Yip Street, Kwun Tong
Kowloon - Hong Kong
T +852 27734 700
hksales@hilti.com

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 | Schweizerisches Toxikologisches Informationszentrum – 24h Service +41 44 251 51 51 (international) +852 27734 700 |
|------------------|---|

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to the United Nations GHS (Rev. 4, 2011)

| | |
|-------------------|------|
| Skin Sens. 1 | H317 |
| Repr. 1B | H360 |
| Aquatic Acute 2 | H401 |
| Aquatic Chronic 2 | H411 |

Full text of H statements : see section 16

2.2. Label elements

Labelling according to the United Nations GHS (Rev. 4, 2011)

Hazard pictograms (GHS UN)



GHS07

GHS08

GHS09

Signal word (GHS UN)

Danger

Hazardous ingredients

2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol; 2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester; dibenzoyl peroxide; dicyclohexyl phthalate

Hazard statements (GHS UN)

H317 - May cause an allergic skin reaction.
H360 - May damage fertility or the unborn child.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (GHS UN)

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.

HVU M8 - M39

Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

P333+P313 - If skin irritation or rash occurs: Get medical advice, medical attention.
 P337+P313 - If eye irritation persists: Get medical advice, medical attention.
 P302+P352 - IF ON SKIN: Wash with plenty of water.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

| Name | Product identifier | % | Classification according to the United Nations GHS |
|---|----------------------|---------|--|
| 2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol | (CAS-No.) 27813-02-1 | 5 - 10 | Flammable liquids Not classified Acute toxicity (oral) Not classified Serious eye damage/eye irritation, Category 2A, H319 Skin sensitisation, Category 1, H317 Hazardous to the aquatic environment - Acute Hazard Not classified Hazardous to the aquatic environment - Chronic Hazard Not classified |
| 2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester | (CAS-No.) 2082-81-7 | 5 - 10 | Acute toxicity (oral) Not classified Skin sensitisation, category 1B, H317 Hazardous to the aquatic environment — Acute Hazard, Category 3, H402 Hazardous to the aquatic environment — Chronic Hazard, Category 3, H412 |
| dibenzoyl peroxide | (CAS-No.) 94-36-0 | 1 - 2.5 | Organic Peroxides, Type B, H241 Serious eye damage/eye irritation, Category 2A, H319 Skin sensitisation, Category 1, H317 Hazardous to the aquatic environment — Acute Hazard, Category 1, H400 (M=10) Hazardous to the aquatic environment — Chronic Hazard, Category 1, H410 (M=10) |
| dicyclohexyl phthalate | (CAS-No.) 84-61-7 | 1 - 2.5 | Acute toxicity (oral) Not classified Acute toxicity (dermal) Not classified Skin sensitisation, Category 1, H317 Reproductive toxicity, Category 1B, H360 Hazardous to the aquatic environment - Acute Hazard Not classified Hazardous to the aquatic environment — Chronic Hazard, Category 3, H412 |
| 1,1'-(p-tolylimino)dipropan-2-ol | (CAS-No.) 38668-48-3 | 0.1 - 1 | Acute toxicity (oral), Category 2, H300 Serious eye damage/eye irritation, Category 2A, H319 Hazardous to the aquatic environment — Acute Hazard, Category 3, H402 Hazardous to the aquatic environment — Chronic Hazard, Category 3, H412 |

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).

HVU M8 - M39

Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

| | |
|---------------------------------------|---|
| First-aid measures after inhalation | Remove person to fresh air and keep comfortable for breathing. Assure fresh air breathing. 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 | Rinse mouth. Drink plenty of water. Get medical advice/attention. Do not induce vomiting. Obtain emergency medical attention. |

4.2. Most important symptoms and effects, both 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. 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. Carbon dioxide. Dry powder. Foam. Sand. |
| 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. |

HVU M8 - M39

Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

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 | 5 - 25 °C |
| Heat and ignition sources | Keep away from heat and direct sunlight. |

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

| | |
|---------------------------------|---|
| 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. |

8.3. Individual protection measures, such as personal protective equipment (PPE)

| | |
|-----------------|---|
| 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. |
|-----------------|---|

| Type | Material | Permeation | Thickness (mm) | Penetration | Standard |
|-------------------|----------------------|-------------------|----------------|-------------|----------|
| Disposable gloves | Nitrile rubber (NBR) | 6 (> 480 minutes) | 0,12 | | EN 374 |

Eye protection Wear security glasses which protect from splashes

| Type | Use | Characteristics | Standard |
|----------------|---------|-----------------|----------------|
| Safety glasses | Droplet | clear | EN 166, EN 170 |

Skin and body protection Wear suitable protective clothing



HVU M8 - M39

Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

8.4. Exposure limit values for the other components

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|--|--|
| Physical state | Solid |
| Appearance | foil capsule. |
| Colour | resin: yellowish liquid hardener: white powder. |
| Odour | characteristic. |
| Odour threshold | No data available |
| pH | No data available |
| Relative evaporation rate (butylacetate=1) | No data available |
| Melting point | No data available |
| Freezing point | No data available |
| Boiling point | No data available |
| Flash point | > 101 °C (DIN EN ISO 1523) |
| Auto-ignition temperature | No data available |
| Decomposition temperature | No data available |
| Flammability (solid, gas) | No data available |
| Vapour pressure | 0.1 hPa |
| Relative vapour density at 20 °C | No data available |
| Relative density | No data available |
| Solubility | insoluble in water. |
| Log Pow | No data available |
| Viscosity, kinematic | 20 Seconds (ISO 2431) |
| Viscosity, dynamic | No data available |
| Explosive properties | No data available |
| Oxidising properties | No data available |
| Explosive limits | No data available |

9.2. Other information

SADT 55 °C dibenzoyl peroxide

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.

HVU M8 - M39

Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

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.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

| | |
|-----------------------------|----------------|
| Acute toxicity (oral) | Not classified |
| Acute toxicity (dermal) | Not classified |
| Acute toxicity (inhalation) | Not classified |

| 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; \geq 2000 mg/kg bodyweight; Rat; Experimental value) |
| LD50 dermal rabbit | \geq 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 |

| 1,1'-(p-tolylimino)dipropan-2-ol (38668-48-3) | |
|--|--------------|
| LD50 oral rat | 25 mg/kg |
| LD50 dermal rat | > 2000 mg/kg |

| dicyclohexyl phthalate (84-61-7) | |
|---|-----------------------|
| LD50 oral rat | 41400 mg/kg (Rat) |
| LD50 dermal rabbit | > 7940 mg/kg (Rabbit) |

| | |
|-----------------------------------|---|
| 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 |
| Reproductive toxicity | May damage fertility or the unborn child. |
| STOT-single exposure | Not classified |
| STOT-repeated exposure | Not classified |
| Aspiration hazard | Not classified |

SECTION 12: Ecological information

12.1. Toxicity

| | |
|---|--|
| Acute aquatic toxicity | Toxic to aquatic life. |
| Classification procedure (Acute aquatic toxicity) | Calculation method |
| Chronic aquatic toxicity | Toxic to aquatic life with long lasting effects. |
| Classification procedure (Chronic aquatic toxicity) | Calculation method |

| 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) |

HVU M8 - M39

Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

| 2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester (2082-81-7) | |
|--|--|
| LC50 fish 1 | 32.5 mg/l |
| 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 |
| dibenzoyl 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 |
| NOEC chronic crustacea | 0.181 mg/l |

12.2. Persistence and degradability

| 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 % |
| 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 O ₂ /g substance |

12.3. Bioaccumulative potential

| 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). |
| 2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester (2082-81-7) | |
| Log Pow | 3.1 |
| 1,1'-(p-tolylimino)dipropan-2-ol (38668-48-3) | |
| BCF fish 1 | ≈ |
| Log Kow | 2.1 |
| 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). |

12.4. Mobility in soil

| 2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1) | |
|---|---------------------------------------|
| Log Pow | See section 12.1 on ecotoxicology |
| Ecology - soil | Low potential for adsorption in soil. |

HVU M8 - M39

Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

| | |
|--|-----------------------------------|
| 2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester (2082-81-7) | |
| Log Pow | See section 12.1 on ecotoxicology |
| 1,1'-(p-tolylimino)dipropan-2-ol (38668-48-3) | |
| Log Kow | See section 12.1 on ecotoxicology |
| dibenzoyl peroxide (94-36-0) | |
| Log Pow | See section 12.1 on ecotoxicology |
| Log Koc | See section 12.1 on ecotoxicology |
| Ecology - soil | Adsorbs into the soil. |
| dicyclohexyl phthalate (84-61-7) | |
| Log Pow | See section 12.1 on ecotoxicology |

12.5. Other adverse effects

| | |
|-----------------------|-------------------------------------|
| Ozone | Not classified |
| Other adverse effects | No additional information available |

SECTION 13: Disposal considerations

13.1. Waste treatment methods

| | |
|--|--|
| Regional legislation (waste) | Disposal must be done according to official regulations. |
| Product/Packaging disposal recommendations | 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. |
| Ecology - waste materials | Avoid release to the environment. |

SECTION 14: Transport information

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

| ADR | IMDG | IATA | RID |
|---|---------------|---------------|---------------|
| 14.1. UN number | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |
| 14.2. UN proper shipping name | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |
| 14.3. Transport hazard class(es) | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |
| 14.4. Packing group | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |
| 14.5. Environmental hazards | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |
| Environmentally hazardous substances derogation applies (quantity of liquids \leq 5 litres or net mass of solids \leq 5 kg) | | | |
| No supplementary information available | | | |

14.6. Special precautions for user

- Overland transport

- Transport by sea

No data available

HVU M8 - M39

Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

- Air transport

No data available

- Rail transport

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

No additional information available

SECTION 16: Other information

SDS Major/Minor None
Date of issue 30/01/2019
Revision date 30/01/2019
Supersedes 13/11/2017

Indication of changes:

| Section | Changed item | Change | Comments |
|---------|--|----------|----------|
| 2.1 | Classification (GHS UN) | Modified | |
| 2.2 | Hazard pictograms (GHS UN) | Added | |
| 2.2 | Hazard statements (GHS UN) | Added | |
| 3 | Composition/information on ingredients | Modified | |

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. |
| H400 | Very toxic to aquatic life. |
| H401 | Toxic to aquatic life |
| H402 | Harmful to aquatic life |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H411 | Toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |

SDS_UN_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