# HVU2

## Safety Data Sheet

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

Revision date: 11/6/2025 Issue date: 11/6/2025 Supersedes: 4/23/2025 Version: 1.4

## SECTION 1: Identification

### 1.1. Identification

| | |
|---|---|
| Product form | Mixture |
| Trade name | HVU2 |
| Product code | BU Anchor |

### 1.2. Other means of identification

No additional information available

### 1.3. Recommended use of the chemical and restrictions on use

| | |
|---|---|
| Use of the substance/mixture | Adhesive anchor capsule for anchor fastening in concrete |
| Restrictions on use | For professional use only |

### 1.4. Supplier's details

**Supplier**
Hilti, Inc.
Legacy Tower, Suite 1000
7250 Dallas Parkway
US TX 75024 Plano
USA
T +1 9724035800
1-800-879-8000 toll free, F +1 918 254 0522
us-sales@hilti.com

**Department issuing data specification sheet**
Hilti Entwicklungsgesellschaft mbH
Hiltistraße 6
DE 86916 Kaufering
Deutschland
T +49 8191 90-0
product.compliance-anchors@hilti.com

### 1.5. Emergency phone number

| | |
|---|---|
| Emergency number | Emergency CONTACT (24-Hour-Number)<br>GBK/Infotrac ID 101022<br>(USA domestic) 1 800 535 5053<br>or international (001) 352 323 3500 |

## SECTION 2: Hazard(s) identification

### 2.1. Classification of the substance or mixture

**GHS-US classification**

| | | |
|---|---|---|
| Skin sensitization, Category 1 | H317 | May cause an allergic skin reaction. |
| Reproductive toxicity, Category 1B | H360 | May damage the unborn child. |

Full text of H-statements: see section 16

### 2.2. GHS Label elements, including precautionary statements

**GHS US labelling**

Hazard pictograms (GHS US)

Signal word (GHS US) Danger

| | |
|---|---|
| Hazard statements (GHS US) | H317 - May cause an allergic skin reaction<br>H360 - May damage the unborn child. |
| Precautionary statements (GHS US) | P280 - Wear eye protection, protective clothing, protective gloves.<br>P262 - Do not get in eyes, on skin, or on clothing.<br>P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.<br>P333+P313 - If skin irritation or rash occurs: Get medical advice or attention.<br>P337+P313 - If eye irritation persists: Get medical advice or attention.<br>P302+P352 - If on skin: Wash with plenty of water. |

### 2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

### 2.4. Hazards not otherwise classified

No additional information available

### 2.5. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name | Product identifier | % | GHS-US classification |
|---|---|---|---|
| Aluminium oxide | CAS-No.: 1344-28-1 | 60 – 80 | Not classified |
| 2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol | CAS-No.: 27813-02-1 | 5 – 10 | Eye Irrit. 2A, H319<br>Skin Sens. 1, H317 |
| 2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester | CAS-No.: 2082-81-7 | 2.5 – 5 | Skin Sens. 1B, H317 |
| dibenzoyl peroxide | CAS-No.: 94-36-0 | 0.5 – < 1.5 | Org. Perox. B, H241<br>Eye Irrit. 2A, H319<br>Skin Sens. 1, H317 |
| dicyclohexyl phthalate | CAS-No.: 84-61-7 | 1 – 2.5 | Skin Sens. 1, H317<br>Repr. 1B, H360 |

Full text of hazard classes and 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 | Rinse mouth. Get medical advice/attention. Do not induce vomiting. Obtain emergency medical attention. |

### 4.2. Most important symptoms and effects (acute and delayed)

| | |
|---|---|
| Potential adverse human health effects and symptoms | No additional information available. |
| 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

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) 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. Specific hazards arising from the chemical

| | |
|---|---|
| Hazardous decomposition products in case of fire | Thermal decomposition generates : Carbon dioxide. Carbon monoxide. |

### 5.3. Special protective equipment and precautions for fire-fighters

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

**For non-emergency personnel**

| | |
|---|---|
| Emergency procedures | Evacuate unnecessary personnel. |

**For emergency responders**

| | |
|---|---|
| Protective equipment | Use personal protective equipment as required. Equip cleanup crew with proper protection. |
| Emergency procedures | Ventilate area. |
| Environmental precautions | Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. |

### 6.2. Methods and materials 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. |

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

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

| **HVU2** | |
|---|---|
| No additional information available | |
| **USA - ACGIH - Occupational Exposure Limits** | |
| ACGIH® TLV® TWA | 5 mg/m³ |
| Remark (ACGIH®) | TLV® Basis: URT & skin irr. Notations: A4 (Not classifiable as a Human Carcinogen) |
| Regulatory reference | ACGIH 2025 |
| **USA - OSHA - Occupational Exposure Limits** | |
| OSHA PEL TWA | 5 mg/m³ |
| Regulatory reference (US-OSHA) | OSHA Annotated Table Z-1 |
| **USA - NIOSH - Occupational Exposure Limits** | |
| NIOSH REL 10h TWA | 5 mg/m³ |
| Regulatory reference (US-NIOSH) | OSHA Annotated Table Z-1 (NIOSH Pocket Guide to Chemical Hazards (NPG)) |

| **Aluminium oxide (1344-28-1)** | |
|---|---|
| No additional information available | |
| **USA - OSHA - Occupational Exposure Limits** | |
| Local name | alpha-Alumina |
| OSHA PEL TWA | 15 mg/m³ (Total dust)<br>5 mg/m³ (Respirable fraction) |
| Regulatory reference (US-OSHA) | OSHA Annotated Table Z-1 |

| **dibenzoyl peroxide (94-36-0)** |
|---|
| No additional information available |

| dibenzoyl peroxide (94-36-0) | |
|---|---|
| **USA - ACGIH - Occupational Exposure Limits** | |
| Local name | Benzoyl peroxide |
| ACGIH® TLV® TWA | 5 mg/m³ |
| Remark (ACGIH®) | TLV® Basis: URT & skin irr. Notations: A4 (Not classifiable as a Human Carcinogen) |
| Regulatory reference | ACGIH 2020 |
| **USA - OSHA - Occupational Exposure Limits** | |
| Local name | Benzoyl peroxide |
| OSHA PEL TWA | 5 mg/m³ |
| Regulatory reference (US-OSHA) | OSHA Annotated Table Z-1 |

| 2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1) |
|---|
| No additional information available |

| 2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester (2082-81-7) |
|---|
| No additional information available |

| dicyclohexyl phthalate (84-61-7) |
|---|
| No additional information available |

### 8.2. Appropriate engineering controls

Appropriate engineering controls: Ensure adequate ventilation.

Environmental exposure controls: Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

**Personal protective equipment:**

Safety glasses. Gloves. Protective clothing. Avoid all unnecessary exposure.

**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. Please follow the instructions related to the permeability and the penetration time provided by the manufacturer

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

**Eye protection:**

Wear security glasses which protect from splashes

| Type | Field of application | Characteristics |
|---|---|---|
| Safety glasses | Droplet | clear |

**Skin and body protection:**

Wear suitable protective clothing

**Personal protective equipment symbol(s):**

**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

| | |
|---|---|
| Physical state | Solid |
| Appearance | foil capsule. |
| Colour | resin: yellowish liquid<br>hardener: white powder |
| Odour | characteristic |
| Odour threshold | No data available |
| pH | 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) |
| Relative evaporation rate (butylacetate=1) | 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 |
| Density | 2.95 g/cm³ |
| Solubility | insoluble in water. |
| Partition coefficient n-octanol/water (Log Pow) | No data available |
| Auto-ignition temperature | No data available |
| Decomposition temperature | No data available |
| Viscosity, kinematic | 20 mm²/s (ISO 2431) |
| Viscosity, dynamic | No data available |
| Explosive limits | No data available |
| Explosive properties | No data available |
| Oxidising properties | No data available |

### 9.2. Other information

| | |
|---|---|
| SADT | 55 °C (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.

### 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 |

| **Aluminium oxide (1344-28-1)** | |
|---|---|
| LD50 oral rat | > 15900 mg/kg |
| LC50 Inhalation - Rat | 7.6 mg/l |
| LC50 Inhalation - Rat (Dust/Mist) | > 2.3 mg/l/4h (OECD 403 method) |

| **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 oral | 10060 mg/kg |
| LD50 dermal rat | > 3000 mg/kg |

| **dicyclohexyl phthalate (84-61-7)** | |
|---|---|
| LD50 oral rat | 41400 mg/kg (Rat) |
| LD50 oral | 40000 mg/kg |
| 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 |

| **dibenzoyl peroxide (94-36-0)** | |
|---|---|
| IARC group | 3 - Not classifiable |

| | |
|---|---|
| Reproductive toxicity | May damage the unborn child. |
| STOT-single exposure | Not classified |
| STOT-repeated exposure | Not classified |
| Aspiration hazard | Not classified |
| Viscosity, kinematic | 20 mm²/s (ISO 2431) |

| | |
|---|---|
| Potential adverse human health effects and symptoms | No additional information available. |
| 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

| dibenzoyl peroxide (94-36-0) | |
|---|---|
| EC50 - Crustacea [1] | 0.11 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP) |
| LC50 - Fish [2] | 0.0602 mg/l (96h; Oncorhynchus mykiss; ECHA) |
| ErC50 algae | 0.0711 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP) |
| NOEC (acute) | 0.0316 mg/l (96h; Oncorhynchus mykiss; ECHA) |
| NOEC chronic fish | 0.001 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 - Crustacea [1] | > 143 mg/l (48 h; Daphnia magna; GLP) |
| ErC50 algae | 97.2 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, 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 |
| ErC50 algae | 9.79 mg/l |
| NOEC (acute) | 7.51 mg/l |
| NOEC (chronic) | 20 mg/l |
| NOEC chronic crustacea | 5.09 mg/l |
| NOEC chronic algae | 2.11 mg/l |

| 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 |
| EC50 - Crustacea [1] | 2 mg/l |
| ErC50 algae | 2 mg/l |
| NOEC (acute) | > 2 mg/l |
| NOEC chronic crustacea | 0.181 mg/l |

### 12.2. Persistence and degradability

| Aluminium oxide (1344-28-1) | |
|---|---|
| Not rapidly degradable | |
| Persistence and degradability | Not applicable. |

| dibenzoyl peroxide (94-36-0) | |
|---|---|
| Persistence and degradability | Readily biodegradable in water. Not established. May cause long-term adverse effects in the environment. |

| 2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1) | |
|---|---|
| Not rapidly degradable | |
| Persistence and degradability | Readily biodegradable in water. |

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

| 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

| Aluminium oxide (1344-28-1) | |
|---|---|
| Bioaccumulative potential | Not applicable. |

| dibenzoyl peroxide (94-36-0) | |
|---|---|
| Partition coefficient n-octanol/water (Log Pow) | 3.71 |
| Bioaccumulative potential | Low bioaccumulation potential (Log Kow < 4). |

| 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) |
| Partition coefficient n-octanol/water (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) | |
|---|---|
| Partition coefficient n-octanol/water (Log Pow) | 3.1 |

| dicyclohexyl phthalate (84-61-7) | |
|---|---|
| BCF - Fish [1] | 640 (Pisces) |
| Partition coefficient n-octanol/water (Log Pow) | 3 – 6.2 |
| Bioaccumulative potential | High potential for bioaccumulation (Log Kow > 5). |

### 12.4. Mobility in soil

| dibenzoyl peroxide (94-36-0) | |
|---|---|
| Surface tension | No data available (test not performed) |
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 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) |
| Ecology - soil | Low potential for mobility in soil. |

| 2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1) | |
|---|---|
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 1.9 (log Koc, Calculated value) |
| Ecology - soil | Highly mobile in soil. |

### 12.5. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

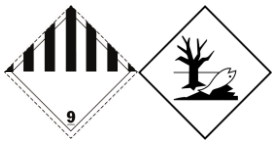
Regional waste regulation: Disposal must be done according to official regulations.

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.

Ecological waste information: Avoid release to the environment.

## SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

| DOT | TDG | IMDG | IATA |
|---|---|---|---|
| | | Special provision(s) applied : 969 | Special provision(s) applied : A197 |
| **14.1. UN number** | | | |
| 3077 | 3077 | 3077 | 3077 |
| **14.2. Proper Shipping Name** | | | |
| Environmentally hazardous substances, solid, n.o.s. (dibenzoyl peroxide) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibenzoyl peroxide) | Environmentally hazardous substance, solid, n.o.s. (dibenzoyl peroxide) |
| **14.3. Transport hazard class(es)** | | | |
| 9 | 9 | 9 | 9 |
|  |  |  |  |

| DOT | TDG | IMDG | IATA |
|---|---|---|---|
| **14.4. Packing group** | | | |
| III | III | III | III |
| **14.5. Environmental hazards** | | | |
| Dangerous for the environment: Yes | Dangerous for the environment: Yes | Dangerous for the environment: Yes<br>Marine pollutant: Yes | Dangerous for the environment: Yes |
| not restricted according ADR Special Provision SP375, IATA-DGR Special Provision A197 and IMDG-Code 2.10.2.7 | | | |

## 14.6. Special precautions for user

**DOT**

UN-No. (DOT) 3077

| | |
|---|---|
| DOT Special Provisions (49 CFR 172.102) | 8 - A hazardous substance that is not a hazardous waste may be shipped under the shipping description “Other regulated substances, liquid or solid, n.o.s.”, as appropriate. In addition, for solid materials, special provision B54 applies.<br>146 - This description may be used for a material that poses a hazard to the environment but does not meet the definition for a hazardous waste or a hazardous substance, as defined in 171.8 of this subchapter, or any hazard class as defined in Part 173 of this subchapter, if it is designated as environmentally hazardous by the Competent Authority of the country of origin, transit or destination.<br>335 - Mixtures of solids that are not subject to this subchapter and environmentally hazardous liquids or solids may be classified as “Environmentally hazardous substances, solid, n.o.s,” UN3077 and may be transported under this entry, provided there is no free liquid visible at the time the material is loaded or at the time the packaging or transport unit is closed. Each transport unit must be leakproof when used as bulk packaging.<br>384 - For transportation by motor vehicle, substances meeting the conditions for high viscosity flammable liquids as prescribed in §173.121(b)(1)(i), (b)(1)(ii), and (b)(1)(iv) of this subchapter, may be reassigned to Packing Group III under the following conditions:<br>A112 - Notwithstanding the quantity limits shown in Column (9A) and (9B) for this entry, the following IBCs are authorized for transportation aboard passenger and cargo-only aircraft. Each IBC may not exceed a maximum net quantity of 1,000 kg:<br>a. Metal: 11A, 11B, 11N, 21A, 21B and 21N<br>b. Rigid plastics: 11H1, 11H2, 21H1 and 21H2<br>c. Composite with plastic inner receptacle: 11HZ1, 11HZ2, 21HZ1 and 21HZ2<br>d. Fiberboard: 11G<br>e. Wooden: 11C, 11D and 11F (with inner liners)<br>f. Flexible: 13H2, 13H3, 13H4, 13H5, 13L2, 13L3, 13L4, 13M1 and 13M2 (flexible IBCs must be sift-proof and water resistant or must be fitted with a sift-proof and water resistant liner).<br>B54 - Open-top, sift-proof rail cars are also authorized.<br>B120 - The use of flexible bulk containers conforming to the requirements in subpart R and subpart S of part 178 of this subchapter is permitted.<br>IB8 - Authorized IBCs: Metal (11A, 11B, 11N, 21A, 21B, 21N, 31A, 31B and 31N); Rigid plastics (11H1, 11H2, 21H1, 21H2, 31H1 and 31H2); Composite (11HZ1, 11HZ2, 21HZ1, 21HZ2, 31HZ1 and 31HZ2); Fiberboard (11G); Wooden (11C, 11D and 11F); Flexible (13H1, 13H2, 13H3, 13H4, 13H5, 13L1, 13L2, 13L3, 13L4, 13M1 or 13M2).<br>IP3 - Flexible IBCs must be sift-proof and water-resistant or must be fitted with a sift-proof and water-resistant liner.<br>N20 - A 5M1 multi-wall paper bag is authorized if transported in a closed transport vehicle.<br>N91 - The use of a non specification sift-proof, non-bulk, metal can with or without lid, or a non specification sift-proof, non-bulk fiber drum, with or without lid is authorized when transporting coal tar pitch compounds by motor vehicle or rail freight. The fiber drum must to be fabricated with a three ply wall, as a minimum. The coal tar pitch compound must be in a solid mass during transportation.<br>T1 - 1.5 178.274(d)(2) Normal..... 178.275(d)(2)<br>TP33 - The portable tank instruction assigned for this substance applies for granular and powdered solids and for solids which are filled and discharged at temperatures above their melting point which are cooled and transported as a solid mass. Solid substances transported or offered for transport above their melting point are authorized for transportation in portable tanks conforming to the provisions of portable tank instruction T4 for solid substances of packing group III or T7 for solid substances of packing group II, unless a tank with more stringent requirements for minimum shell thickness, maximum allowable working pressure, pressure-relief devices or bottom outlets are assigned in which case the more stringent tank instruction and special provisions shall apply. Filling limits must be in accordance with portable tank special provision TP3. Solids meeting the definition of an elevated temperature material must be transported in accordance with the applicable requirements of this subchapter. |
| DOT Packaging Exceptions (49 CFR 173.xxx) | 155 |

| | |
|---|---|
| DOT Packaging Non Bulk (49 CFR 173.xxx) | 213 |
| DOT Packaging Bulk (49 CFR 173.xxx) | 240 |
| DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) | No Limit |
| DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) | No Limit |
| DOT Vessel Stowage Location | A - The material may be stowed ‘‘on deck’’ or ‘‘under deck’’ on a cargo vessel and on a passenger vessel. |

**TDG**

| | |
|---|---|
| UN-No. (TDG) | 3077 |
| TDG Special Provisions | 16 - (1) The technical name of at least one of the most dangerous substances that predominantly contributes to the danger or dangers posed by the dangerous goods must be shown, in parentheses, on the shipping document following the shipping name in accordance with clause 3.5(1)(c)(ii)(A). The technical name must also be shown, in parentheses, on a small means of containment or on a tag following the shipping name in accordance with subsections 4.11(2) and (3).<br>(2) Despite subsection (1), the technical name for the following dangerous goods is not required to be shown on a shipping document or on a small means of containment when Canadian law for domestic transport or an international convention for international transport prohibits the disclosure of the technical name:<br>(a) UN1544, ALKALOID SALTS, SOLID, N.O.S. or ALKALOIDS, SOLID, N.O.S;<br>(b) UN1851, MEDICINE, LIQUID, TOXIC, N.O.S;<br>(c) UN3140, ALKALOID SALTS, LIQUID, N.O.S. or ALKALOIDS, LIQUID, N.O.S;<br>(d) UN3248, MEDICINE, LIQUID, FLAMMABLE, TOXIC, N.O.S; or<br>(e) UN3249, MEDICINE, SOLID, TOXIC, N.O.S.<br>(3) Despite subsection (1), the technical name for the following dangerous goods is not required to be shown on a small means of containment:<br>(a) UN2814, INFECTIOUS SUBSTANCE, AFFECTING HUMANS; or<br>(b) UN2900, INFECTIOUS SUBSTANCE, AFFECTING ANIMALS,99 - (1) Mixtures of solids that are not dangerous goods and liquids or solids that are UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S, or UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S, may be offered for transport, handled or transported as UN3077 if there is no visible liquid when the dangerous goods are loaded into a means of containment and during transport.<br>(2) These Regulations, except for Parts 1 and 2, do not apply to the offering for transport, handling or transport of less than 450 kg of UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S, or less than 450 L of UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S, on a road vehicle or a railway vehicle. The dangerous goods must be contained in one or more small means of containment designed, constructed, filled, closed, secured and maintained so that under normal conditions of transport, including handling, there will be no release of the dangerous goods that could endanger public safety. |
| Explosive Limit and Limited Quantity Index | 5 kg |
| Excepted quantities (TDG) | E1 |
| Emergency Response Guide (ERG) Number | 171 |

**IMDG**

| | |
|---|---|
| Special provisions (IMDG) | 274, 335, 375, 966, 967, 969 |
| Limited quantities (IMDG) | 5 kg |
| Packing instructions (IMDG) | LP02, P002 |
| EmS-No. (Fire) | F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE |
| EmS-No. (Spillage) | S-F - SPILLAGE SCHEDULE Foxtrot - WATER-SOLUBLE MARINE POLLUTANTS |
| Stowage category (IMDG) | A |
| Stowage and handling (IMDG) | SW23 |

**IATA**

| | |
|---|---|
| PCA packing instructions (IATA) | 956 |
| PCA max net quantity (IATA) | 400kg |
| CAO packing instructions (IATA) | 956 |
| Special provisions (IATA) | A97, A158, A179, A197, A215 |

### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

All components of this product are present and listed as Active 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. | | |
|---|---|---|
| Aluminium oxide | CAS-No. 1344-28-1 | 60 – 80% |
| dibenzoyl peroxide | CAS-No. 94-36-0 | 0.5 – < 1.5% |

### 15.2. International 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

## SECTION 16: Other information

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

| | |
|---|---|
| Revision date | 11/06/2025 |
| Other information | None. |

| **Full text of hazard classes and H-statements** | |
|---|---|
| H241 | Heating may cause a fire or explosion |
| H317 | May cause an allergic skin reaction |
| H319 | Causes serious eye irritation |
| H360 | May damage fertility or the unborn child. |

| **Abbreviations and acronyms** | |
|---|---|
| ADN | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways |
| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road |
| ATE | Acute Toxicity Estimate |
| BCF | Bioconcentration factor |

| Abbreviations and acronyms | |
|---|---|
| CLP | Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008 |
| DMEL | Derived Minimal Effect level |
| DNEL | Derived-No Effect Level |
| EC50 | Median effective concentration |
| IARC | International Agency for Research on Cancer |
| IATA | International Air Transport Association |
| IMDG | International Maritime Dangerous Goods |
| LC50 | Median lethal concentration |
| LD50 | Median lethal dose |
| LOAEL | Lowest Observed Adverse Effect Level |
| NOAEC | No-Observed Adverse Effect Concentration |
| NOAEL | No-Observed Adverse Effect Level |
| NOEC | No-Observed Effect Concentration |
| OECD | Organisation for Economic Co-operation and Development |
| PBT | Persistent Bioaccumulative Toxic |
| PNEC | Predicted No-Effect Concentration |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006 |
| RID | Regulations concerning the International Carriage of Dangerous Goods by Rail |
| SDS | Safety Data Sheet |
| vPvB | Very Persistent and Very Bioaccumulative |
| MAK | maximum workplace concentration |
| OEL | Occupational Exposure Limit |
| OEL STEL | Occupational Exposure Limits - Short Term Exposure Limits (STELs) |
| TWA | Time Weighted Average |
| NIOSH | NIOSH (National Institute for Occupational Safety and Health) |
| AwSV | Regulation Governing Systems for Handling Substances Hazardous to Waters (AwSV) |
| BetrSichV | Industrial Safety Ordinance (BetrSichV) |
| BLV | Biological limit value |
| CAS-No. | Chemical Abstract Service number |
| ChemVerbotsV | Prohibition of Chemicals Ordinance (ChemVerbotsV) |
| EC-No. | European Community number |
| ED | Endocrine disruptor |
| EN | European Standard |

| Abbreviations and acronyms | |
|---|---|
| EWC | European waste catalogue |
| MuSchG | Act on the Protection of Working Mothers (MuSchG) |
| PPE | Personal protection equipment |
| TRGS | Technical Rules for Hazardous Substances |
| UFI | Unique Formula Identifier |
| VOC | Volatile Organic Compounds |
| WGK | Water Hazard Class |

| Indication of changes: | | | |
|---|---|---|---|
| **Section** | **Changed item** | **Change** | **Comments** |
| 1 | Name | Modified | |

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.