

HUS4-MAX

Safety information for 2-Component-products

Issue date: 16/04/2025

Revision date: 16/04/2025

Supersedes: 14/10/2021

Version: 1.1

SECTION 1: Kit identification

1.1 Product identifier

Product name HUS4-MAX
Product code BU Anchor



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

Hilti (Schweiz) AG
Soodstrasse 61
8134 Adliswil - Schweiz
T +41 844 84 84 85 - F +41 844 84 84 86
info@hilti.ch

SECTION 2: General information

Restrictions on use For professional use only
Storage Storage temperature : -20 - +25 °C

Switzerland

Swiss CPID No KIT: 804561-66; HUS4-MAX, A: 777410-39; HUS4-MAX, B: 777406-51
VOCV (Swiss) 0 %

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

This Kit should be handled in accordance with good laboratory practices and appropriate personal protective equipment should be used

SECTION 3: Kit contents

Classification of the Product

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

Org. Perox. F H242
Eye Irrit. 2 H319
Skin Sens. 1 H317
Aquatic Acute 1 H400
Aquatic Chronic 1 H410

Full text of H- and EUH-statements: see section 16

Label elements

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

HUS4-MAX

Kit Safety Information Sheet (SIS)

Hazard pictograms (CLP)



Signal word (CLP)

Hazardous ingredients

Hazard statements (CLP)

Precautionary statements (CLP)

Extra phrases

Warning

2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (A); 2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester (A); 4-tert-butylpyrocatechol (A); dibenzoyl peroxide (B)

H242 - Heating may cause a fire.

H317 - May cause an allergic skin reaction.

H319 - Causes serious eye irritation.

H410 - Very toxic to aquatic life with long lasting effects.

P210 - Keep away from heat, hot surfaces, open flames, sparks. – No smoking.

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.

P302+P352 - IF ON SKIN: Wash with plenty of soap and water.

P337+P313 - If eye irritation persists: Get medical advice/attention.

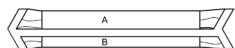
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

Additional information

Foil capsule contains:

Component A: Urethane methacrylate resin

Component B: Dibenzoyl peroxide, phlegmatized



Name	General description	Quantity	Unit	Classification according to Regulation (EC) No. 1272/2008 [CLP]
HUS4-MAX, A		1	pcs (pieces)	Skin Sens. 1, H317
HUS4-MAX, B		1	pcs (pieces)	Org. Perox. F, H242 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

SECTION 4: General information

General advice

For professional users only

SECTION 5: Safe handling advice

General measures

Spilled material may present a slipping hazard

Environmental precautions

Prevent entry to sewers and public waters

Notify authorities if liquid enters sewers or public waters

Storage conditions

Keep container tightly closed.

Keep cool. Protect from sunlight.

Avoid contact with : Air

Expiry date: See date printed on box and capsule. Do not use if expiry date has been exceeded!

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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

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Methods for cleaning up	smoking and when leaving work Provide good ventilation in process area to prevent formation of vapour 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.
For containment	Collect spillage.
Incompatible materials	Sources of ignition Direct sunlight
Incompatible products	Strong bases Strong acids

SECTION 6: First aid measures

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
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 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)
Symptoms/effects after eye contact	May cause severe irritation
Symptoms/effects after skin contact	May cause an allergic skin reaction.
Other medical advice or treatment	Treat symptomatically

SECTION 7: Fire fighting measures

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

SECTION 8: Other information

No data available

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Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

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

1.1. Product identifier

Product form	Mixture
Trade name	HUS4-MAX, A
UFI	CAV7-HKFW-081R-A36G
Swiss CPID No	777410-39
Product code	BU Anchor

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Industrial/Professional use spec	For professional use only
Use of the substance/mixture	Adhesive anchor capsule for anchor fastening in concrete

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier

Hilti (Schweiz) AG
Soodstrasse 61
CH 8134 Adliswil
Schweiz
T +41 844 84 84 85, F +41 844 84 84 86
info@hilti.ch

Department issuing data specification sheet

Hilti Entwicklungsgesellschaft mbH
Hiltistraße 6
DE 86916 Kaufering
Deutschland
T +49 8191 906876
product.compliance-anchors@hilti.com

1.4. Emergency telephone number

Emergency number	Emergency CONTACT (24-Hour-Number): GBK GmbH Global Regulatory Compliance +49 (0)6132-84463
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Skin sensitisation, Category 1	H317
Full text of H- and EUH-statements: see section 16	

Adverse physicochemical, human health and environmental effects

May cause an allergic skin reaction.

2.2. Label elements

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

Hazard pictograms (CLP)



GHS07

Signal word (CLP)

Contains

Warning
2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester; 2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol; 4-tert-butylpyrocatechol

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Hazard statements (CLP)

Precautionary statements (CLP)

H317 - May cause an allergic skin reaction.

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.

P302+P352 - IF ON SKIN: Wash with plenty of water.

P337+P313 - If eye irritation persists: Get medical advice/attention.

P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

Component	
2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester (2082-81-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
1,1'-(p-tolylimino)dipropan-2-ol (38668-48-3)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
4-tert-butylpyrocatechol (98-29-3)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

Component	
2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester (2082-81-7)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605
1,1'-(p-tolylimino)dipropan-2-ol (38668-48-3)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605
2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605
4-tert-butylpyrocatechol (98-29-3)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

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3.2. Mixtures

Name	Product identifier	Conc.	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester	CAS-No.: 2082-81-7 EC-No.: 218-218-1 REACH-no: 01-2119967415-30	60 – 80	Skin Sens. 1B, H317
1,1'-(p-tolylimino)dipropan-2-ol	CAS-No.: 38668-48-3 EC-No.: 254-075-1 REACH-no: 01-2119980937-17	1 - 3	Acute Tox. 2 (Oral), H300 (ATE=25 mg/kg bodyweight) Eye Irrit. 2, H319 Aquatic Chronic 3, H412
2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol	CAS-No.: 27813-02-1 EC-No.: 248-666-3 EC Index-No.: 607-125-00-5 REACH-no: 01-2119490226-37	0 - 1	Eye Irrit. 2, H319 Skin Sens. 1, H317
4-tert-butylpyrocatechol	CAS-No.: 98-29-3 EC-No.: 202-653-9 REACH-no: 01-2119548368-28	0 - 1	Acute Tox. 4 (Oral), H302 (ATE=815 mg/kg bodyweight) Acute Tox. 4 (Dermal), H312 (ATE=630 mg/kg bodyweight) Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of H- and EUH-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, 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.

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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

Hazardous decomposition products in case of fire	Thermal decomposition generates : Carbon dioxide. Carbon monoxide.
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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.
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6.1.1. For non-emergency personnel

Emergency procedures	Evacuate unnecessary personnel.
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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.

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7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:

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

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Wear security glasses which protect from splashes

Eye protection			
Type	Field of application	Characteristics	Standard
Safety glasses	Droplet	clear	EN 166, EN 170

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

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.

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

8.2.2.3. Respiratory protection

No additional information available

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure 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.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Colour	light yellow.
Odour	characteristic.
Odour threshold	Not available
Melting point	Not applicable
Freezing point	Not available
Boiling point	Not available
Flammability	Not available
Lower explosion limit	Not available
Upper explosion limit	Not available
Flash point	> 101 °C (DIN EN ISO 1523)
Auto-ignition temperature	Not available
Decomposition temperature	Not available
pH	5.7
Viscosity, kinematic	160.55 mm²/s
Viscosity, dynamic	175 mPa·s
Solubility	Not available
Partition coefficient n-octanol/water (Log Kow)	Not available
Vapour pressure	Not available
Vapour pressure at 50°C	Not available
Density	1.09 g/cm³
Relative density	Not available
Relative vapour density at 20°C	Not available
Particle characteristics	Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

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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.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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

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

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

LD50 oral rat	25 mg/kg
LD50 dermal rat	> 2000 mg/kg

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)

4-tert-butylpyrocatechol (98-29-3)

LD50 oral rat	815 mg/kg bodyweight (Rat; Lethal; ECHA)
LD50 oral	2820 mg/kg
LD50 dermal rat	1331 mg/kg bodyweight (Rat; Lethal; ECHA)
LD50 dermal	630 mg/kg

Skin corrosion/irritation	Not classified pH: 5.7
Serious eye damage/irritation	Not classified pH: 5.7
Respiratory or skin sensitisation	May cause an allergic skin reaction.

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Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
STOT-single exposure	Not classified
STOT-repeated exposure	Not classified
Aspiration hazard	Not classified

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Viscosity, kinematic	160.55 mm²/s

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	Not classified
Hazardous to the aquatic environment, long-term (chronic)	Not classified

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

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 - Crustacea [1]	28.8 mg/l
NOEC (acute)	57.8 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)

4-tert-butylpyrocatechol (98-29-3)	
LC50 - Fish [1]	0.12 mg/l (96 h, Danio rerio, Lethal, ECHA)

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4-tert-butylpyrocatechol (98-29-3)	
ErC50 algae	10.17 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)

12.2. Persistence and degradability

2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester (2082-81-7)	
Biodegradation	84 %
2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol (27813-02-1)	
Persistence and degradability	Readily biodegradable in water.
4-tert-butylpyrocatechol (98-29-3)	
Persistence and degradability	Not readily biodegradable in water.
ThOD	2.4 g O ₂ /g substance

12.3. Bioaccumulative potential

2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester (2082-81-7)	
Partition coefficient n-octanol/water (Log Pow)	3.1
1,1'-(p-tolylimino)dipropan-2-ol (38668-48-3)	
Partition coefficient n-octanol/water (Log Kow)	2.1
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).
4-tert-butylpyrocatechol (98-29-3)	
Partition coefficient n-octanol/water (Log Pow)	1.98 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

12.4. 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.
4-tert-butylpyrocatechol (98-29-3)	
Surface tension	No data available (test not performed)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.37 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP)
Ecology - soil	Highly mobile in soil.

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12.5. Results of PBT and vPvB assessment

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This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional waste regulation

Product/Packaging disposal recommendations

Ecological information

European List of Waste (LoW, EC 2000/532)

HP Code

Disposal must be done according to official regulations.

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.

Avoid release to the environment.

08 04 09* - waste adhesives and sealants containing organic solvents or other dangerous substances

20 01 27* - paint, inks, adhesives and resins containing dangerous substances

HP6 - "Acute Toxicity:" waste which can cause acute toxic effects following oral or dermal administration, or inhalation exposure.

HP4 - "Irritant – skin irritation and eye damage:" waste which on application can cause skin irritation or damage to the eye.

HP13 - "Sensitising:" waste which contains one or more substances known to cause sensitising effects to the skin or the respiratory organs.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
14.1. UN number or ID 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
No supplementary information available			

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14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Rail transport

Not regulated

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)	
Reference code	Applicable on
3(b)	HUS4-MAX, A ; 2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol ; 2-Propenoic acid, 2-methyl-, 1,4-butanediyl ester

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

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15.1.2. National regulations

Switzerland

Swiss National Regulations

Young people in basic vocational training may only work with this product if this is provided for in the respective educational ordinance to achieve their training goal, the requirements of the training plan are met and the applicable age restrictions are observed. Young people who do not complete basic vocational training must not work with this product. Young people are employees of both sexes up to the age of 18 (Ordinance on the Protection of Young People at Work, SR 822.115).

Storage class (LK)

LK 10/12 - Liquids

Swiss CPID No

777410-39

VOCV (Swiss)

0 %

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes			
Section	Changed item	Change	Comments
			General update
1.3	Address Information (SDS)	Modified	E-Mail
1.4	Emergency number	Modified	

Abbreviations and acronyms:

CAS-No.	Chemical Abstract Service number
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
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
EC-No.	European Community number
ED	Endocrine disrupting properties
EN	European Standard
IARC	International Agency for Research on Cancer

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Abbreviations and acronyms:	
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
IOELV	Indicative Occupational Exposure Limit Value
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NIOSH	National Institute for Occupational Safety and Health
N.O.S.	Not Otherwise Specified
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
OEL	Occupational Exposure Limit
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
ThOD	Theoretical oxygen demand (ThOD)
TRGS	Technical Rules for Hazardous Substances
VOC	Volatile Organic Compounds
TLM	Median Tolerance Limit
vPvB	Very Persistent and Very Bioaccumulative
WGK	Water Hazard Class
STP	Sewage treatment plant
MAK	maximum workplace concentration
TWA	Time Weighted Average
OEL STEL	Occupational Exposure Limits - Short Term Exposure Limits (STELs)

Other information: None.

Full text of H- and EUH-statements:	
Acute Tox. 2 (Oral)	Acute toxicity (oral), Category 2
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1

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Full text of H- and EUH-statements:	
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H300	Fatal if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1B	Skin sensitisation, category 1B

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Skin Sens. 1	H317	Calculation method

SDS_EU_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.

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Issue date: 16/04/2025

Revision date: 16/04/2025

Supersedes version of: 14/10/2021

Version: 1.1

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

1.1. Product identifier

Product form	Mixture
Trade name	HUS4-MAX, B
UFI	YW48-4KGK-N817-G7FX
Swiss CPID No	777406-51
Product code	BU Anchor

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Industrial/Professional use spec	For professional use only
Use of the substance/mixture	Adhesive anchor capsule for anchor fastening in concrete

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier

Hilti (Schweiz) AG
Soodstrasse 61
CH 8134 Adliswil
Schweiz
T +41 844 84 84 85, F +41 844 84 84 86
info@hilti.ch

Department issuing data specification sheet

Hilti Entwicklungsgesellschaft mbH
Hiltistraße 6
DE 86916 Kaufering
Deutschland
T +49 8191 906876
product.compliance-anchors@hilti.com

1.4. Emergency telephone number

Emergency number	Emergency CONTACT (24-Hour-Number): GBK GmbH Global Regulatory Compliance +49 (0)6132-84463
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Organic Peroxides, Type F	H242
Serious eye damage/eye irritation, Category 2	H319
Skin sensitisation, Category 1	H317
Hazardous to the aquatic environment – Acute Hazard, Category 1	H400
Hazardous to the aquatic environment – Chronic Hazard, Category 1	H410
Full text of H- and EUH-statements: see section 16	

Adverse physicochemical, human health and environmental effects

Heating may cause a fire. May cause an allergic skin reaction. Causes serious eye irritation. Very toxic to aquatic life with long lasting effects.

2.2. Label elements

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

Hazard pictograms (CLP)



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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

	GHS02	GHS07	GHS09
Signal word (CLP)	Warning		
Contains	dibenzoyl peroxide		
Hazard statements (CLP)	H242 - Heating may cause a fire. H317 - May cause an allergic skin reaction. H319 - Causes serious eye irritation. H410 - Very toxic to aquatic life with long lasting effects.		
Precautionary statements (CLP)	P210 - Keep away from heat, hot surfaces, open flames, sparks. – No smoking. 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. P302+P352 - IF ON SKIN: Wash with plenty of soap and water. P337+P313 - If eye irritation persists: Get medical advice/attention. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.		

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

Component	
dibenzoyl peroxide (94-36-0)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

Component	
dibenzoyl peroxide (94-36-0)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	Conc.	Classification according to Regulation (EC) No. 1272/2008 [CLP]
dibenzoyl peroxide	CAS-No.: 94-36-0 EC-No.: 202-327-6 EC Index-No.: 617-008-00-0 REACH-no: 01-2119511472-50	10 – 25	Org. Perox. B, H241 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)

Full text of H- and EUH-statements: see section 16

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

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, 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

Fire hazard	May form flammable vapour-air mixtures. May decompose violently at elevated temperatures or in a fire. Burns vigorously. Insoluble in water. Contact with alkalis or acids may cause dangerous decomposition. The products of combustion or self-accelerating decomposition may be toxic by inhalation. Will float and can be reignited on water surface. Vapours may form explosive mixture with air.
Explosion hazard	Decomposition products may be a hazard to health.
Reactivity in case of fire	Formation of toxic gases is possible during heating or in case of fire. Corrosive vapours.
Hazardous decomposition products in case of fire	Thermal decomposition can lead to the release of irritating gases and vapours.

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.
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6.1.1. For non-emergency personnel

Emergency procedures	Evacuate unnecessary personnel. No flames, no sparks. Eliminate all sources of ignition. Explosive vapour/air mixtures may be formed.
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6.1.2. For emergency responders

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

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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 container tightly closed. Keep cool. Protect from sunlight. Avoid contact with : Air. Store away from other materials. Expiry date: See date printed on box and capsule. Do not use if expiry date has been exceeded!.
Incompatible materials	Strong acids. Strong bases. Activator. reducing agents. solid salts and solutions containing heavy metals.
Storage temperature	-20 – 25 °C
Heat and ignition sources	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. National occupational exposure and biological limit values

dibenzoyl peroxide (94-36-0)	
Switzerland - Occupational Exposure Limits	
Local name	Peroxyde de benzoyle / Dibenzoylperoxid [Benzoylperoxid]
MAK (OEL TWA)	5 mg/m ³ (i) / (e)
KZGW (OEL STEL)	5 mg/m ³ (i) / (e)
Remark	NIOSH
Regulatory reference	www.suva.ch, 01.01.2025

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

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8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure adequate ventilation.

8.2.2. Personal protection equipment

Personal protective equipment:

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

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Wear security glasses which protect from splashes

Eye protection			
Type	Field of application	Characteristics	Standard
Safety glasses	Droplet	clear	EN 166, EN 170

8.2.2.2. Skin protection

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.

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

8.2.2.3. Respiratory protection

No additional information available

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure 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.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Colour	white.
Odour	characteristic.
Odour threshold	Not available
Melting point	Not applicable
Freezing point	Not available
Boiling point	Not available
Flammability	Heating may cause a fire.
Explosive properties	Product is not explosive.
Lower explosion limit	Not available
Upper explosion limit	Not available
Flash point	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
SADT	70 °C
pH	≈ 7
Viscosity, kinematic	194.175 mm ² /s
Viscosity, dynamic	200 mPa·s
Solubility	insoluble in water.
Partition coefficient n-octanol/water (Log Kow)	Not available
Vapour pressure	23.4 hPa
Vapour pressure at 50°C	Not available
Density	1.03 g/cm ³
Relative density	Not available
Relative vapour density at 20°C	Not available
Particle characteristics	Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended handling and storage conditions (see section 7).

10.2. Chemical stability

Stable under normal conditions. Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

Can form explosive mixtures with air.

10.4. Conditions to avoid

May decompose violently at elevated temperatures or in a fire. Burns vigorously. Insoluble in water. Contact with alkalis or acids may cause dangerous decomposition. The products of combustion or self-accelerating decomposition may be toxic by inhalation. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

10.5. Incompatible materials

Strong acids. Strong bases. Activator. reducing agents. solid salts and solutions containing heavy metals.

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10.6. Hazardous decomposition products

Toxic and corrosive gases are released. Toxic and corrosive fumes are released.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	Not classified
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified
Skin corrosion/irritation	Not classified pH: ≈ 7
Serious eye damage/irritation	Causes serious eye irritation. pH: ≈ 7
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	Not classified
STOT-single exposure	Not classified
STOT-repeated exposure	Not classified
Aspiration hazard	Not classified

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Viscosity, kinematic	194.175 mm ² /s
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11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	Very toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	Very toxic to aquatic life.
Hazardous to the aquatic environment, long-term (chronic)	Very toxic to aquatic life with long lasting effects.

dibenzoyl peroxide (94-36-0)

LC50 - Fish [2]	0.0602 mg/l (96h; Oncorhynchus mykiss; ECHA)
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)
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

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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.
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12.3. Bioaccumulative potential

dibenzoyl peroxide (94-36-0)

Partition coefficient n-octanol/water (Log Pow)	3.71
Bioaccumulative potential	Low bioaccumulation potential (Log Kow < 4).

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.

12.5. Results of PBT and vPvB assessment

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This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment 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 information	Avoid release to the environment.
European List of Waste (LoW, EC 2000/532)	08 04 09* - waste adhesives and sealants containing organic solvents or other dangerous substances 20 01 27* - paint, inks, adhesives and resins containing dangerous substances

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HP Code

HP1 - "Explosive:" waste which is capable by chemical reaction of producing gas at such a temperature and pressure and at such a speed as to cause damage to the surroundings. Pyrotechnic waste, explosive organic peroxide waste and explosive self-reactive waste is included.





HP4 - "Irritant – skin irritation and eye damage:" waste which on application can cause skin irritation or damage to the eye.

HP13 - "Sensitising:" waste which contains one or more substances known to cause sensitising effects to the skin or the respiratory organs.

HP14 - "Ecotoxic:" waste which presents or may present immediate or delayed risks for one or more sectors of the environment

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
14.1. UN number or ID number			
UN 3109	UN 3109	UN 3109	UN 3109
14.2. UN proper shipping name			
ORGANIC PEROXIDE TYPE F, LIQUID (dibenzoyl peroxide)	ORGANIC PEROXIDE TYPE F, LIQUID (dibenzoyl peroxide)	Organic peroxide type F, liquid (dibenzoyl peroxide)	ORGANIC PEROXIDE TYPE F, LIQUID (dibenzoyl peroxide)
Transport document description			
UN 3109 ORGANIC PEROXIDE TYPE F, LIQUID (dibenzoyl peroxide), 5.2, (D), ENVIRONMENTALLY HAZARDOUS	UN 3109 ORGANIC PEROXIDE TYPE F, LIQUID (dibenzoyl peroxide), 5.2, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS	UN 3109 Organic peroxide type F, liquid (dibenzoyl peroxide), 5.2, ENVIRONMENTALLY HAZARDOUS	UN 3109 ORGANIC PEROXIDE TYPE F, LIQUID (dibenzoyl peroxide), 5.2, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard class(es)			
5.2	5.2	5.2	5.2
			
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards			
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
No supplementary information available			

14.6. Special precautions for user

Overland transport

Classification code (ADR)	P1
Special provisions (ADR)	122, 274
Limited quantities (ADR)	125ml
Packing instructions (ADR)	P520, IBC520
Mixed packing provisions (ADR)	MP4

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Transport category (ADR)
Orange plates

2



Tunnel restriction code (ADR)

D

Transport by sea

Special provisions (IMDG)	122, 274
Limited quantities (IMDG)	125 ml
Packing instructions (IMDG)	P520
EmS-No. (Fire)	F-J
EmS-No. (Spillage)	S-R
Stowage category (IMDG)	D
Stowage and handling (IMDG)	SW1
Segregation (IMDG)	SG35, SG36, SG72

Air transport

PCA packing instructions (IATA)	570
PCA max net quantity (IATA)	10L
CAO packing instructions (IATA)	570
Special provisions (IATA)	A20, A150, A802

Rail transport

Special provisions (RID)	122, 274
Packing instructions (RID)	P520, IBC520

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)	
Reference code	Applicable on
3(a)	HUS4-MAX, B
3(b)	HUS4-MAX, B
3(c)	HUS4-MAX, B

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

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Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

Switzerland

Swiss National Regulations

Young people in basic vocational training may only work with this product if this is provided for in the respective educational ordinance to achieve their training goal, the requirements of the training plan are met and the applicable age restrictions are observed. Young people who do not complete basic vocational training must not work with this product. Young people are employees of both sexes up to the age of 18 (Ordinance on the Protection of Young People at Work, SR 822.115).

Storage class (LK)

LK 5 - Oxidizing materials

Swiss CPID No

777406-51

VOCV (Swiss)

0 %

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes			
Section	Changed item	Change	Comments
			General update
1.3	Address Information (SDS)	Modified	E-Mail
1.4	Emergency number	Modified	

Abbreviations and acronyms:	
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
IOELV	Indicative Occupational Exposure Limit Value
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
TRGS	Technical Rules for Hazardous Substances
WGK	Water Hazard Class
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
BLV	Biological limit value

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Abbreviations and acronyms:	
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
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
NIOSH	National Institute for Occupational Safety and Health
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
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties
MAK	maximum workplace concentration
TWA	Time Weighted Average
OEL STEL	Occupational Exposure Limits - Short Term Exposure Limits (STELs)

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Other information

None.

Full text of H- and EUH-statements:

Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H241	Heating may cause a fire or explosion.
H242	Heating may cause a fire.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
Org. Perox. B	Organic Peroxides, Type B
Org. Perox. F	Organic Peroxides, Type F
Skin Sens. 1	Skin sensitisation, Category 1

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Org. Perox. F	H242	Expert judgement
Eye Irrit. 2	H319	Calculation method
Skin Sens. 1	H317	Calculation method
Aquatic Acute 1	H400	Calculation method
Aquatic Chronic 1	H410	Calculation method

SDS_EU_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.