HIT-ICE

Safety information for 2-Component-products

Issue date: 25/07/2023 Revision date: 25/07/2023 Supersedes: 11/11/2022 Version: 8.0

SECTION 1: Kit identification

1.1 Product identifier

Product name	HIT-ICE
Product code	BU Anchor

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

Storage	Storage temperature : 5 - 25 °C

Switzerland

Swiss CPID No	573012-96
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. E	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]

Hazard pictograms (CLP)

GHS02 GHS07 GHS09

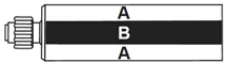
Signal word (CLP)	Warning
Hazardous ingredients	methacrylates, dibenzoyl peroxide
Hazard statements (CLP)	H242 - Heating may cause a fire. H317 - May cause an allergic skin reaction. H319 - Causes serious eye irritation. H410 - Very toxic to aquatic life with long lasting effects.
Precautionary statements (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.

Extra phrases

Additional information

Plastic-cartridge, contains:
Methacrylate resin, inorganic filler
Dibenzoyl peroxide, phlegmatized



Name	General description	Quantity	Unit	Classification according to Regulation (EC) No. 1272/2008 [CLP]
HIT-ICE, A		1	pcs (pieces)	Skin Sens. 1, H317 Aquatic Chronic 3, H412
HIT-ICE, B		1	pcs (pieces)	Org. Perox. E, 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 cool. Protect from sunlight.

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

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.

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	Causes serious eye 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

HIT-ICE, B

Safety Data Sheet

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

Issue date: 25/07/2023 Revision date: 25/07/2023 Supersedes version of: 11/11/2022 Version: 8.0

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

1.1. Product identifier

Product form	Mixture
Product name	HIT-ICE, B
UFI	WJ5R-003C-FX00-5UAV
Swiss CPID No	573092-50
Product code	BU Anchor

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

1.2.1. Relevant identified uses

Main use category	Professional use
Use of the substance/mixture	Composite mortar component for fasteners in the construction industry

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
anchor.hse@hilti.com

1.4. Emergency telephone number

Emergency number	Schweizerisches Toxikologisches Informationszentrum – 24h Service +41 44 251 51 51 (international)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Organic Peroxides, Type E	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

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP)

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/vPvB substances ≥ 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 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 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	%	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	25 – 40	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

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

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

5.3. Advice for firefighters

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	Spilled material may present a slipping hazard.

6.1.1. For non-emergency personnel

Emergency procedures	Evacuate unnecessary personnel.

6.1.2. For emergency responders

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

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

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

6.4. Reference to other sections

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	Keep cool. Protect from sunlight.
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.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additional information	The product has a pasty consistency. Exposure limit values for respirable dusts are not relevant for this product.

8.1.1. National occupational exposure and biological limit values

HIT-ICE, B	
Switzerland - Occupational Exposure Limits	
Local name	Peroxyde de benzoyle / Dibenzoylperoxid [Benzoylperoxid]
MAK (OEL TWA) [1]	5 mg/m³ (i) / (e)
KZGW (OEL STEL)	5 mg/m³ (i) / (e)
Critical toxicity	VRS, Peau / OAW, Haut
Notation	$C1_A$, SS_C, P / $C1_A$, SS_C, P
Remark	NIOSH
Regulatory reference	www.suva.ch, 28.03.2022

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 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.
No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid

Colour	white.
Appearance	Thixotropic paste.
Odour	characteristic.
Odour threshold	Not determined
Melting point	Not available
Freezing point	≥ -25 °C
Boiling point	Not available
Flammability	Flammable
Explosive properties	Heating may cause a fire.
Oxidising properties	May cause fire or explosion; strong oxidiser.
Explosive limits	Not applicable
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Flash point	Not applicable
Auto-ignition temperature	Not self-igniting
Decomposition temperature	Not available
SADT	> 50 °C
pH	Not available
pH solution	Not available
Viscosity, kinematic	Not applicable
Viscosity, dynamic	55 – 95 mPa·s (HN 570-1)
Solubility	Water: Not miscible
Partition coefficient n-octanol/water (Log Kow)	Not available
Vapour pressure	Not available
Vapour pressure at 50°C	Not available
Density	1.35 g/ml DIN 51757
Relative density	Not available
Relative vapour density at 20°C	Not applicable
Particle size	Not available
Particle size distribution	Not available
Particle shape	Not available
Particle aspect ratio	Not available
Particle aggregation state	Not available
Particle agglomeration state	Not available
Particle specific surface area	Not available
Particle dustiness	Not available

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

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
Skin corrosion/irritation	Not classified
Additional information	Based on available data, the classification criteria are not met
Serious eye damage/irritation	Causes serious eye irritation.
Respiratory or skin sensitisation	May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified
Additional information	Based on available data, the classification criteria are not met
Carcinogenicity	Not classified
Additional information	Based on available data, the classification criteria are not met

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

Reproductive toxicity	Not classified
STOT-single exposure	Not classified
Additional information	Based on available data, the classification criteria are not met
STOT-repeated exposure	Not classified
Additional information	Based on available data, the classification criteria are not met
Aspiration hazard	Not classified
Additional information	Based on available data, the classification criteria are not met

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

11.2.2. Other information

Potential adverse human health effects and symptoms	No additional information available

SECTION 12: Ecological information

12.1. Toxicity

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)

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)
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

12.2. Persistence and degradability

HIT-ICE, B	
Persistence and degradability	Not established.

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

12.3. Bioaccumulative potential

HIT-ICE, B	
Bioaccumulative potential	Not established.

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

HIT-ICE, B
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

Additional information: Avoid release to the environment.

SECTION 13: Disposal considerations

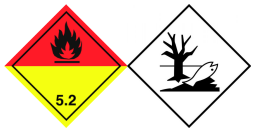
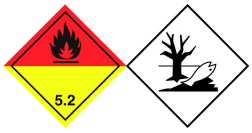
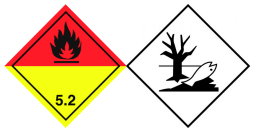
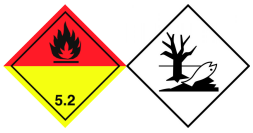
13.1. Waste treatment methods

Regional legislation (waste): Disposal must be done according to official regulations.

Product/Packaging disposal recommendations	After curing, the product can be disposed of with household waste. . Full or only partially emptied cartridges must be disposed of as special waste in accordance with official regulations. Packaging contaminated by the product : Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials	Avoid release to the environment.
European List of Waste (LoW) code	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
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.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
14.1. UN number or ID number			
UN 3108	UN 3108	UN 3108	UN 3108
14.2. UN proper shipping name			
ORGANIC PEROXIDE TYPE E, SOLID (dibenzoyl peroxide)	ORGANIC PEROXIDE TYPE E, SOLID (dibenzoyl peroxide)	Organic peroxide type E, solid (dibenzoyl peroxide)	ORGANIC PEROXIDE TYPE E, SOLID (dibenzoyl peroxide)
Transport document description			
UN 3108 ORGANIC PEROXIDE TYPE E, SOLID (dibenzoyl peroxide), 5.2, (D), ENVIRONMENTALLY HAZARDOUS	UN 3108 ORGANIC PEROXIDE TYPE E, SOLID (dibenzoyl peroxide), 5.2, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS	UN 3108 Organic peroxide type E, solid (dibenzoyl peroxide), 5.2, ENVIRONMENTALLY HAZARDOUS	UN 3108 ORGANIC PEROXIDE TYPE E, SOLID (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)	500g
Packing instructions (ADR)	P520
Mixed packing provisions (ADR)	MP4
Transport category (ADR)	2
Tunnel restriction code (ADR)	D

Transport by sea

Special provisions (IMDG)	122, 274
Limited quantities (IMDG)	500 g
Packing instructions (IMDG)	P520
EmS-No. (Fire)	F-J
EmS-No. (Spillage)	S-R
Stowage category (IMDG)	D
MFAG-No	145

Air transport

PCA packing instructions (IATA)	570
PCA max net quantity (IATA)	10kg
CAO packing instructions (IATA)	570
Special provisions (IATA)	A20

Rail transport

Special provisions (RID)	122, 274
Limited quantities (RID)	500g
Packing instructions (RID)	P520

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)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

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)

15.1.2. National regulations

Switzerland

Storage class (LK)	LK 5 - Oxidizing materials
Swiss CPID No	573092-50
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**
1.1	UFI	Modified	
2.1	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Modified	
2.2	Hazard pictograms (CLP)	Removed	
2.2	Hazard statements (CLP)	Removed	
3.2	Composition/information on ingredients	Modified	

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
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

Abbreviations and acronyms:	
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

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. E	Organic Peroxides, Type E
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. E	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.

HIT-ICE, A

Safety Data Sheet

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

Issue date: 25/07/2023 Revision date: 25/07/2023 Supersedes version of: 11/11/2022 Version: 6.8

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

1.1. Product identifier

Product form	Mixture
Product name	HIT-ICE, A
UFI	6VVQ-V0D8-HX01-ACGC
Swiss CPID No	215466-11
Product code	BU Anchor

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

1.2.1. Relevant identified uses

Main use category	Professional use
Use of the substance/mixture	Composite mortar component for fasteners in the construction industry

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
anchor.hse@hilti.com

1.4. Emergency telephone number

Emergency number	Schweizerisches Toxikologisches Informationszentrum – 24h Service +41 44 251 51 51 (international)

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
Hazardous to the aquatic environment – Chronic Hazard, Category 3	H412

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

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP)

GHS07

Signal word (CLP)	Warning
Contains	2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol, Methyl methyacrylate
Hazard statements (CLP)	H317 - May cause an allergic skin reaction. H412 - Harmful to aquatic life with long lasting effects.
Precautionary statements (CLP)	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/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

Component	
Ethoxylated Bisphenol A Dimethacrylate (41637-38-1)	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
1,6-hexanediyl bismethacrylate (6606-59-3)	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
1,1,1-Trimethylolpropane trimethacrylate (3290-92-4)	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
Methyl methyacrylate (80-62-6)	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 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 at a concentration equal to or greater than 0,1 %

Component	
Ethoxylated Bisphenol A Dimethacrylate(41637-38-1)	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
1,6-hexanediyl bismethacrylate(6606-59-3)	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
1,1,1-Trimethylolpropane trimethacrylate(3290-92-4)	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

Component	
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
Methyl methyacrylate(80-62-6)	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	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Ethoxylated Bisphenol A Dimethacrylate	CAS-No.: 41637-38-1 REACH-no: 01-2119980659-17	10 – 25	Not classified
1,6-hexanediyl bismethacrylate	CAS-No.: 6606-59-3 EC-No.: 229-551-7	5 – 10	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	5 – 10	Eye Irrit. 2, H319 Skin Sens. 1, H317
1,1,1-Trimethylolpropane trimethacrylate	CAS-No.: 3290-92-4 EC-No.: 221-950-4 REACH-no: 01-2119542176-41	3 – 5	Aquatic Chronic 2, H411
1,1'-(p-tolylimino)dipropan-2-ol	CAS-No.: 38668-48-3 EC-No.: 254-075-1 REACH-no: 01-2119980937-17	0.1 – 1	Acute Tox. 2 (Oral), H300 (ATE=25 mg/kg bodyweight) Eye Irrit. 2, H319 Aquatic Chronic 3, H412
Methyl methyacrylate substance with a Community workplace exposure limit	CAS-No.: 80-62-6 EC-No.: 201-297-1 EC Index-No.: 607-035-00-6	0 – 0.5	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT SE 3, H335

Specific concentration limits:		
Name	**Product identifier**	**Specific concentration limits**
1,6-hexanediyl bismethacrylate	CAS-No.: 6606-59-3 EC-No.: 229-551-7	(10 ≤C < 100) STOT SE 3, H335

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.

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.

5.3. Advice for firefighters

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures: Spilled material may present a slipping hazard.

6.1.1. For non-emergency personnel

Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders

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

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

For containment	Collect spillage.
Methods for cleaning up	This material and its container must be disposed of in a safe way, and as per local legislation. Mechanically recover the product. Store away from other materials.

Other information	Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	Keep cool. Protect from sunlight.
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.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additional information	The product has a pasty consistency. Exposure limit values for respirable dusts are not relevant for this product.

8.1.1. National occupational exposure and biological limit values

HIT-ICE, A	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Methyl methacrylate
IOEL TWA [ppm]	50 ppm
IOEL STEL [ppm]	100 ppm
Regulatory reference	COMMISSION DIRECTIVE 2009/161/EU
Switzerland - Occupational Exposure Limits	
Local name	Méthacrylate de méthyle / Methylmethacrylat [Methacrylsäuremethylester]
MAK (OEL TWA) [1]	210 mg/m³
MAK (OEL TWA) [2]	50 ppm
KZGW (OEL STEL)	420 mg/m³
KZGW (OEL STEL) [ppm]	100 ppm
Critical toxicity	Poumons, VRS, Yeux / Lunge, OAW, Auge
Notation	S, SS_C / S, SS_C
Remark	INRS, NIOSH

HIT-ICE, A	
Regulatory reference	www.suva.ch, 01.01.2021

Methyl methyacrylate (80-62-6)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Methyl methacrylate
IOEL TWA [ppm]	50 ppm
IOEL STEL [ppm]	100 ppm
Switzerland - Occupational Exposure Limits	
Local name	Méthylacrylate de méthyle
MAK (OEL TWA) [1]	210 mg/m³
MAK (OEL TWA) [2]	50 ppm
KZGW (OEL STEL)	420 mg/m³
KZGW (OEL STEL) [ppm]	100 ppm
Remark	4x15

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 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.
No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Colour	Grey.
Appearance	Thixotropic paste.
Odour	characteristic.
Odour threshold	Not determined
Melting point	Not available
Freezing point	Not available
Boiling point	Not available
Flammability	Flammable
Explosive properties	Product is not explosive.
Explosive limits	Not applicable
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Flash point	Not applicable
Auto-ignition temperature	Not self-igniting
Decomposition temperature	Not available
pH	Not available
pH solution	Not available
Viscosity, kinematic	32544.379 mm²/s
Viscosity, dynamic	55 Pa·s HN-0333
Solubility	Water: Not miscible

Partition coefficient n-octanol/water (Log Kow)	Not available
Vapour pressure	Not available
Vapour pressure at 50°C	Not available
Density	1.69 g/ml DIN 51757
Relative density	Not available
Relative vapour density at 20°C	Not applicable
Particle size	Not available
Particle size distribution	Not available
Particle shape	Not available
Particle aspect ratio	Not available
Particle aggregation state	Not available
Particle agglomeration state	Not available
Particle specific surface area	Not available
Particle dustiness	Not available

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

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

Ethoxylated Bisphenol A Dimethacrylate (41637-38-1)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg

1,6-hexanediyl bismethacrylate (6606-59-3)	
LD50 oral rat	> 15000 mg/kg (Rat; Literature study)

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)

1,1,1-Trimethylolpropane trimethacrylate (3290-92-4)	
LD50 oral rat	> 5000 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

Methyl methyacrylate (80-62-6)	
LD50 oral rat	> 6000 mg/kg (Rat; Equivalent or similar to OECD 401; Literature study; 7900 mg/kg bodyweight; Rat; Equivalent or similar to OECD 401; Weight of evidence; 8400 mg/kg bodyweight; Rat; Weight of evidence)
LD50 dermal rabbit	> 7550 mg/kg (Rabbit; Literature study; Equivalent or similar to OECD 402; >5000 mg/kg bodyweight; Rabbit; Experimental value)
LC50 Inhalation - Rat	27.5 mg/l/4h (Rat; Literature study)

Skin corrosion/irritation	Not classified
Additional information	Based on available data, the classification criteria are not met
Serious eye damage/irritation	Not classified
Additional information	Based on available data, the classification criteria are not met
Respiratory or skin sensitisation	May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified
Additional information	Based on available data, the classification criteria are not met
Carcinogenicity	Not classified
Additional information	Based on available data, the classification criteria are not met
Reproductive toxicity	Not classified
Additional information	Based on available data, the classification criteria are not met
STOT-single exposure	Not classified
Additional information	Based on available data, the classification criteria are not met

Methyl methyacrylate (80-62-6)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure	Not classified
Additional information	Based on available data, the classification criteria are not met
Aspiration hazard	Not classified
Additional information	Based on available data, the classification criteria are not met

HIT-ICE, A	
Viscosity, kinematic	32544.379 mm²/s

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

11.2.2. Other information

Potential adverse human health effects and symptoms	No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short–term (acute)	Not classified
Hazardous to the aquatic environment, long–term (chronic)	Harmful to aquatic life with long lasting effects.

Ethoxylated Bisphenol A Dimethacrylate (41637-38-1)	
LC50 - Fish [1]	> 100 mg/l
EC50 - Crustacea [1]	> 100 mg/l
NOEC (acute)	> 100 mg/l

1,6-hexanediyl bismethacrylate (6606-59-3)	
LC50 - Fish [1]	4.5 mg/l (96 h; Brachydanio rerio)
EC50 - Crustacea [1]	11.9 mg/l (48 h, Daphnia magna, QSAR)
EC50 72h - Algae [1]	5.33 mg/l (Algae, QSAR)

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)

1,1,1-Trimethylolpropane trimethacrylate (3290-92-4)	
LC50 - Fish [1]	2 mg/l
ErC50 algae	3.88 mg/l
NOEC chronic fish	0.138 mg/l
NOEC chronic crustacea	0.177 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

Methyl methyacrylate (80-62-6)	
LC50 - Fish [1]	130 mg/l (96 h; Pimephales promelas; Lethal)
LC50 - Fish [2]	191 mg/l (96 h; Lepomis macrochirus)
EC50 - Crustacea [1]	69 mg/l (48 h; Daphnia magna; GLP)
EC50 - Crustacea [2]	502 mg/l (24 h; Daphnia magna)
EC50 72h - Algae [1]	> 110 mg/l (OECD 201: Alga, Growth Inhibition Test, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Growth rate)

Methyl methyacrylate (80-62-6)	
TLM - Fish [1]	159 mg/l (96 h; Pimephales promelas)
Threshold limit - Other aquatic organisms [1]	100 mg/l (16 h; Pseudomonas putida)
Threshold limit - Algae [1]	37 mg/l (168 h; Scenedesmus quadricauda; Toxicity test)
Threshold limit - Algae [2]	120 mg/l (192 h; Microcystis aeruginosa)

12.2. Persistence and degradability

HIT-ICE, A	
Persistence and degradability	Not established.

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

Methyl methyacrylate (80-62-6)	
Biochemical oxygen demand (BOD)	0.14 g O_2/g substance
ThOD	1.9 g O_2/g substance

12.3. Bioaccumulative potential

HIT-ICE, A	
Bioaccumulative potential	Not established.

Ethoxylated Bisphenol A Dimethacrylate (41637-38-1)	
Bioconcentration factor (BCF REACH)	52.13
Partition coefficient n-octanol/water (Log Pow)	3.43 – 5.62 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method)
Partition coefficient n-octanol/water (Log Kow)	5.3

1,6-hexanediyl bismethacrylate (6606-59-3)	
BCF - Fish [1]	228.6 l/kg (BCFBAF v3.01, Pisces, QSAR, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	4.08 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method)

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).

1,1,1-Trimethylolpropane trimethacrylate (3290-92-4)	
BCF - Fish [2]	366 l/kg
Partition coefficient n-octanol/water (Log Pow)	3.53
Partition coefficient n-octanol/water (Log Kow)	4.39

1,1'-(p-tolylimino)dipropan-2-ol (38668-48-3)	
Partition coefficient n-octanol/water (Log Kow)	2.1

Methyl methyacrylate (80-62-6)	
BCF - Fish [1]	2.97 – 3.5 (Pisces)
Partition coefficient n-octanol/water (Log Pow)	1.32 – 1.38 (Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method; 20 °C)
Bioaccumulative potential	Low bioaccumulation potential (Log Kow < 4).

12.4. Mobility in soil

Ethoxylated Bisphenol A Dimethacrylate (41637-38-1)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.56 (2.56 – 3.88)
Ecology - soil	Low potential for adsorption in soil.

1,6-hexanediyl bismethacrylate (6606-59-3)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.7 (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	Low potential for adsorption 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.

Methyl methyacrylate (80-62-6)	
Surface tension	61 mN/m (OECD 115: Surface Tension of Aqueous Solutions)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.94 – 1.86 (log Koc, EPA OTS 796.2750: Sediment and Soil Adsorption Isotherm, Experimental value, GLP)
Ecology - soil	Highly mobile in soil.

12.5. Results of PBT and vPvB assessment

HIT-ICE, A
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

Additional information: Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste): Disposal must be done according to official regulations.

Product/Packaging disposal recommendations: After curing, the product can be disposed of with household waste. . Full or only partially emptied cartridges must be disposed of as special waste in accordance with official regulations. Packaging contaminated by the product : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials	Avoid release to the environment.
European List of Waste (LoW) code	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
HP Code	HP3 - “Flammable:” – flammable liquid waste: liquid waste having a flash point below 60 °C or waste gas oil, diesel and light heating oils having a flash point > 55 °C and ≤ 75 °C; – flammable pyrophoric liquid and solid waste: solid or liquid waste which, even in small quantities, is liable to ignite within five minutes after coming into contact with air; – flammable solid waste: solid waste which is readily combustible or may cause or contribute to fire through friction; – flammable gaseous waste: gaseous waste which is flammable in air at 20 °C and a standard pressure of 101.3 kPa; – water reactive waste: waste which, in contact with water, emits flammable gases in dangerous quantities; – other flammable waste: flammable aerosols, flammable self-heating waste, flammable organic peroxides and flammable self-reactive waste.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
14.1. UN number or ID number			
Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name			
Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)			
Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards			
Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available			

14.6. Special precautions for user

Overland transport
Not applicable

Transport by sea
Not applicable

Air transport
Not applicable

Rail transport
Not applicable

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)	Methyl methyacrylate
3(b)	2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol ; Methyl methyacrylate
3(c)	1,6-hexanediyl bismethacrylate ; 1,1,1-Trimethylolpropane trimethacrylate
40.	Methyl methyacrylate

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)

15.1.2. National regulations

Switzerland

Storage class (LK)	LK 11/13 - Solids
Swiss CPID No	215466-11
VOCV (Swiss)	0%

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

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

Abbreviations and acronyms:	
BCF	Bioconcentration factor
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

Other information None.

Full text of H- and EUH-statements:	
Acute Tox. 2 (Oral)	Acute toxicity (oral), Category 2
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
H225	Highly flammable liquid and vapour.
H300	Fatal if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

Full text of H- and EUH-statements:	
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Skin Sens. 1	H317	Calculation method
Aquatic Chronic 3	H412	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.