

HIT-FP 700-R

Safety information for 2-Component-products

Issue date: 24/10/2023

Revision date: 24/10/2023

Version: 1.0

SECTION 1: Kit identification

1.1 Product identifier

Product name

HIT-FP 700-R



Product code

BU Anchor

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

Hilti Far East Private Ltd.
80 Pasir Panjang Road,
#16-83/84 Mapletree Business City
117372 Singapore - Singapur
T +65 6777 7887 - F +65 6777 3057
sg-customerservice@hilti.com

SECTION 2: General information

Storage

Storage temperature : 5 - 25 °C

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

GHS SG classification

Health hazards

Skin corrosion/irritation, Category 2
Serious eye damage/eye irritation, Category 1

Label elements

GHS SG labelling

Hazard pictograms (GHS SG)



GHS05

Signal word (GHS SG)

Danger

Hazardous ingredients

lithium hydroxide; L-(+)-tartaric acid

Hazard statements (GHS SG)

H315 - Causes skin irritation.
H318 - Causes serious eye damage.

Precautionary statements (GHS SG)

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.

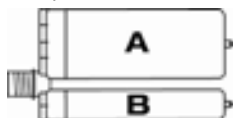
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P337+P313 - If eye irritation persists: Get medical advice/attention.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

Additional information

2-component-foilpack, contains:
Component A: Cement, Inhibitor, Water
Component B: Base, Accelerator, Filler



Name	General description	Quantity	Unit	GHS SG classification
HIT-FP 700-R, B		1	pcs (pieces)	Skin Irrit. 2, H315 Eye Dam. 1, H318

No substance or mixture included in the following Kit components is hazardous according to Regulation (EC) No. 1272/2008 [CLP] and therefore the requirements of Regulation (EU) 2015/830 do not apply

Name	General description	Quantity	Unit	GHS SG classification
HIT-FP 700-R, A		1	pcs (pieces)	Not classified

SECTION 4: General advice

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
Avoid release to the environment
Full or only partially emptied cartridges must be disposed of as special waste in accordance with official regulations.

Storage conditions

Protect from sunlight. Store in a well-ventilated place.

Technical measures

Comply with applicable regulations

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
Avoid contact during pregnancy/while nursing

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
On land, sweep or shovel into suitable containers
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

Get immediate medical advice/attention.
Immediately rinse with water for a prolonged period while holding the eyelids wide open

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First-aid measures after ingestion	Remove contact lenses, if present and easy to do. Continue rinsing. Consult an eye specialist
First-aid measures after inhalation	Do not induce vomiting Rinse mouth Immediately call a POISON CENTER/doctor.
First-aid measures after skin contact	Remove person to fresh air and keep comfortable for breathing. Wash with plenty of water/... Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get immediate medical advice/attention.
First-aid measures general	Never give anything by mouth to an unconscious person If you feel unwell, seek medical advice (show the label where possible)
Symptoms/effects	Causes severe skin burns and eye damage.
Symptoms/effects after eye contact	Causes serious eye damage.
Symptoms/effects after skin contact	May cause an allergic skin reaction.

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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SECTION 1: Identification

1.1. Product identifier

Name HIT-FP 700-R, A
Product code BU Anchor

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended uses and restrictions For professional use only
Recommended use Composite mortar component for fasteners in the construction industry

1.4. Supplier's details

Supplier

Hilti Far East Private Ltd.
80 Pasir Panjang Road, #16-83/84 Mapletree Business City Singapore
Singapur 117372
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Department issuing data specification sheet

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1.5. Emergency phone number

Emergency number GBK GmbH Global Regulatory Compliance
+49 (0)6132-84463

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Not classified as hazardous according to GHS

2.2. GHS label elements including precautionary statements

No labelling applicable

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Synonyms	Concentration (%)	Formula	Product identifier
2-octyl-2H-isothiazol-3-one	2-octyl-2H-isothiazol-3-one / 2-octyl-3(2H)-isothiazolone / 2-octyl-4-isothiazolin-3-one / 3(2H)-Isothiazolone, 2-octyl- / octhilinone	< 0.0015	C11H19NOS	CAS-No.: 26530-20-1 EC-No.: 247-761-7 EC Index-No.: 613-112-00-5

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SECTION 4: First-aid measures

4.1. Description of necessary first aid measures

First-aid measures general	Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
Inhalation	Allow affected person to breathe fresh air. Allow the victim to rest.
Skin contact	Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
Eye contact	Get immediate medical advice/attention. Immediately rinse with water for a prolonged period while holding the eyelids wide open. Consult an eye specialist. Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
Ingestion	Rinse mouth. Do NOT induce vomiting. Drink plenty of water. Obtain emergency medical attention.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects	Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after inhalation	No information available.
Symptoms/effects after skin contact	No information available.
Symptoms/effects after eye contact	No information available.
Symptoms/effects after ingestion	No information available.

4.3. Indication of immediate medical attention and special treatment needed

Other medical advice or treatment	No additional information available.
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SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media	Dry powder. Carbon dioxide. Water spray. Alcohol-resistant foam.
Unsuitable extinguishing media	Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire	Thermal decomposition generates : Corrosive vapours. In case of fire and/or explosion do not breathe fumes.
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5.3. Special protective actions for fire fighters

Firefighting instructions	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

No additional information available

6.1.1. For non-emergency personnel

Emergency procedures	Evacuate unnecessary personnel. Do not breathe vapours.
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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.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Soak up with inert absorbent material (for example sand, sawdust, a universal binder, silica gel). Collect all waste in suitable and labelled containers and dispose according to local legislation.
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6.4. Reference to other sections

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	Wear personal protective equipment. Do not breathe vapours. 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.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	Do not use metal containers. Keep container tightly closed.
Incompatible materials	Metals.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters/Occupational exposure limits

No additional information available

8.2. Monitoring

No additional information available

8.3. Appropriate engineering control measures

No additional information available

8.4. Personal protection

Hand protection	Protective gloves
Eye protection	Chemical goggles or safety glasses

Personal protective equipment symbol(s)



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	Thixotropic paste.
Colour	Light grey
Odour	odourless
Odour threshold	No data available
pH	4.5 – 7.5
Relative evaporation rate (butylacetate=1)	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	No data available
Auto-ignition temperature	No data available

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Decomposition temperature	No data available
Flammability	Non flammable.
Vapour pressure	No data available
Relative vapour density at 20°C	No data available
Relative density	No data available
Density	2.05 – 2.15 g/cm ³
Solubility	No data available
Partition coefficient n-octanol/water (Log Pow)	No data available
Partition coefficient n-octanol/water (Log Kow)	No data available
Viscosity, dynamic	180 – 500
Explosive properties	No data available
Oxidising properties	No data available
Explosive limits	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Corrosive.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

No additional information available.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Acute toxicity

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

2-octyl-2H-isothiazol-3-one (26530-20-1)	
LD50 oral rat	550 mg/kg (Rat, Literature study, Oral)
LD50 oral	355 mg/kg
LD50 dermal rabbit	690 mg/kg bodyweight (Rabbit, Literature study, Dermal)
LD50 dermal	311 mg/kg
LC50 Inhalation - Rat	> 2 mg/m ³ (4 h, Rat, Literature study, Inhalation (vapours))
LC50 Inhalation - Rat (Dust/Mist)	0.586 mg/l/4h

Skin corrosion/irritation	Not classified pH: 4.5 – 7.5
Serious eye damage/irritation	Not classified
Respiratory or skin sensitisation	Not classified
Germ cell mutagenicity	Not classified

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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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Density	2.05 – 2.15 g/cm ³

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)	Not classified
Other information	Avoid release to the environment.

2-octyl-2H-isothiazol-3-one (26530-20-1)	
LC50 - Fish [1]	0.14 mg/l (96 h, Pimephales promelas, Literature study)
LC50 - Fish [2]	0.05 mg/l (96 h, Oncorhynchus mykiss, Literature study)
EC50 - Crustacea [1]	0.18 mg/l (48 h, Daphnia magna, Literature study)
EC50 - Crustacea [2]	0.32 mg/l (48 h, Daphnia magna, Literature study)
NOEC chronic fish	0.012 mg/l
BCF - Fish [1]	1280 (67 day(s), Lepomis macrochirus, Flow-through system, Literature study)
Partition coefficient n-octanol/water (Log Pow)	2.45 (Experimental value)

12.2. Persistence and degradability

HIT-FP 700-R, A	
Persistence and degradability	Not established.
2-octyl-2H-isothiazol-3-one (26530-20-1)	
Not rapidly degradable	
Persistence and degradability	Inherently biodegradable.

12.3. Bioaccumulative potential

HIT-FP 700-R, A	
Bioaccumulative potential	Not established.
2-octyl-2H-isothiazol-3-one (26530-20-1)	
BCF - Fish [1]	1280 (67 day(s), Lepomis macrochirus, Flow-through system, Literature study)
Partition coefficient n-octanol/water (Log Pow)	2.45 (Experimental value)
Bioaccumulative potential	Potential for bioaccumulation (500 ≤ BCF ≤ 5000).

12.4. Mobility in soil

HIT-FP 700-R, A	
Mobility in soil	No additional information available
2-octyl-2H-isothiazol-3-one (26530-20-1)	
Partition coefficient n-octanol/water (Log Pow)	2.45 (Experimental value)

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2-octyl-2H-isothiazol-3-one (26530-20-1)	
Ecology - soil	No (test)data on mobility of the substance available.

12.5. Other adverse effects

Ozone	Not classified
Other adverse effects	No additional information available

SECTION 13: Disposal considerations

Product/Packaging disposal recommendations	Dispose in a safe manner in accordance with local/national regulations. After curing, the product can be disposed of with household waste.
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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

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SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations specific for the product in question

Regulation	Component / Mixture
Environmental Protection and Management Act (Hazardous Substances)	List of Hazardous Substances HIT-FP 700-R, A

15.2. International regulations

No additional information available

15.3 Chemical inventory status

No additional information available

SECTION 16: Other information

Issue date	24/10/2023
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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 BOD - Biochemical oxygen demand (BOD) COD - Chemical oxygen demand (COD) DNEL - Derived-No Effect Level EC-No. - European Community number EC50 - Median effective concentration IATA - International Air Transport Association IMDG - International Maritime Dangerous Goods LC50 - Median lethal concentration LD50 - Median lethal dose 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 ThOD - Theoretical oxygen demand (ThOD) vPvB - Very Persistent and Very Bioaccumulative ED - Endocrine disrupting properties

SDS_SG_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-FP 700-R, B

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SECTION 1: Identification

1.1. Product identifier

Name HIT-FP 700-R, B
Product code BU Anchor

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended uses and restrictions For professional use only
Recommended use Composite mortar component for fasteners in the construction industry

1.4. Supplier's details

Supplier

Hilti Far East Private Ltd.
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1.5. Emergency phone number

Emergency number GBK GmbH Global Regulatory Compliance
+49 (0)6132-84463

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Health hazards Skin corrosion/irritation, Category 2
Serious eye damage/eye irritation, Category 1

2.2. GHS label elements including precautionary statements

Hazard pictograms (GHS SG)



Signal word (GHS SG)

Danger

Hazard statements (GHS SG)

H315 : Causes skin irritation.
H318 : Causes serious eye damage.

Precautionary statements

Prevention

P280 : Wear eye protection, protective clothing, protective gloves.
P262 : Do not get in eyes, on skin, or on clothing.

Response

P305+P351+P338 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 : If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 : If eye irritation persists: Get medical advice/attention.
P302+P352 : IF ON SKIN: Wash with plenty of soap and water.

2.3. Other hazards which do not result in classification

No additional information available

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SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Synonyms	Concentration (%)	Formula	Product identifier
citric acid	1,2,3-Propanetricarboxylic acid, 2-hydroxy- / 2-hydroxy-1,2,3-propanetricarboxylic acid	2.5 – 5	C ₆ H ₈ O ₇	CAS-No.: 77-92-9 EC-No.: 201-069-1
Lithium sulphate	lithium sulfate(2:1) / sulfuric acid, dilithium salt	1 – 2.5	Li ₂ SO ₄	CAS-No.: 10377-48-7 EC-No.: 233-820-4
lithium hydroxide	lithium hydrate / lithium hydroxide, anhydrous	1 – 2.5	LiOH	CAS-No.: 1310-65-2 EC-No.: 215-183-4
L-(+)-tartaric acid	(+)-tartaric acid / (2R,3R)-(+)-tartaric acid / [R-(R*,R*)]-2, 3-dihydroxybutanedioic acid	1 – 2.5	C ₄ H ₆ O ₆	CAS-No.: 87-69-4 EC-No.: 201-766-0

SECTION 4: First-aid measures

4.1. Description of necessary first aid measures

First-aid measures general	Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
Inhalation	Allow affected person to breathe fresh air. Allow the victim to rest. Get medical advice/attention if you feel unwell.
Skin contact	Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
Eye contact	Get immediate medical advice/attention. Immediately rinse with water for a prolonged period while holding the eyelids wide open. Consult an eye specialist. Obtain medical attention if pain, blinking or redness persists.
Ingestion	Rinse mouth. Do NOT induce vomiting. Drink plenty of water. Obtain emergency medical attention.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Indication of immediate medical attention and special treatment needed

No additional information available

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media Foam. Dry powder. Carbon dioxide. Water spray. Sand.
 Unsuitable extinguishing media Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

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

5.3. Special protective actions for fire fighters

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

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According to SS 586 Part 3: 2014

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No additional information available

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

Full or only partially emptied cartridges must be disposed of as special waste in accordance with official regulations. Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

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. On land, sweep or shovel into suitable containers. Store away from other materials.

6.4. Reference to other sections

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

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.

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

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters/Occupational exposure limits

No additional information available

8.2. Monitoring

No additional information available

8.3. Appropriate engineering control measures

No additional information available

8.4. Personal protection

Hand protection Protective gloves
Eye protection Chemical goggles or safety glasses

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Personal protective equipment symbol(s)



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	Thixotropic paste.
Colour	Light grey
Odour	characteristic
Odour threshold	No data available
pH	11 – 12.5
Relative evaporation rate (butylacetate=1)	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Flammability	Non flammable.
Vapour pressure	No data available
Relative vapour density at 20°C	No data available
Relative density	No data available
Density	2.05 – 2.15 g/cm ³
Solubility	No data available
Partition coefficient n-octanol/water (Log Pow)	No data available
Partition coefficient n-octanol/water (Log Kow)	No data available
Viscosity, dynamic	400 – 1000
Explosive properties	No data available
Oxidising properties	No data available
Explosive limits	No data available

9.2. Other information

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

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

HIT-FP 700-R, B

Safety Data Sheet

According to SS 586 Part 3: 2014

SECTION 11: Toxicological information

11.1. Acute toxicity

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

citric acid (77-92-9)	
LD50 oral rat	11700 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male, Experimental value, Oral, 7 day(s))
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))

Lithium sulphate (10377-48-7)	
LD50 oral rat	613 mg/kg bodyweight (Rat, Experimental value, Oral)
LD50 oral	613 mg/kg
LD50 dermal rabbit	> 3000 mg/kg

lithium hydroxide (1310-65-2)	
LD50 oral rat	330 mg/kg (Rat, Female, Weight of evidence, Oral)
LD50 dermal rat	> 2000 mg/kg (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	3400 g/m ³
LC50 Inhalation - Rat (Dust/Mist)	0.96 mg/l/4h

L-(+)-tartaric acid (87-69-4)	
LD50 oral rat	2000 – 5000 mg/kg bodyweight (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, 14 day(s), Rat, Female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))

Skin corrosion/irritation	Causes skin irritation. pH: 11 – 12.5
Serious eye damage/irritation	Causes serious eye damage.
Respiratory or skin sensitisation	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
STOT-single exposure	Not classified

citric acid (77-92-9)	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	Not classified
Aspiration hazard	Not classified

HIT-FP 700-R, B	
Density	2.05 – 2.15 g/cm ³
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
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Hazardous to the aquatic environment, long-term (chronic)	Not classified
Other information	Avoid release to the environment.

citric acid (77-92-9)	
LC50 - Fish [1]	440 – 760 mg/l (Equivalent or similar to OECD 203, 48 h, Leuciscus idus, Static system, Fresh water, Experimental value, Nominal concentration)
Partition coefficient n-octanol/water (Log Pow)	-1.8 – -1.55 (Experimental value)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1 (log Koc, SRC PCKOCWIN v2.0, Calculated value)

Lithium sulphate (10377-48-7)	
EC50 72h - Algae [1]	> 400 mg/l (OECD 201: Alga, Growth Inhibition Test, Desmodesmus subspicatus, Static system, Fresh water, Read-across)
Partition coefficient n-octanol/water (Log Pow)	-4.38 (Calculated, 20 °C)

lithium hydroxide (1310-65-2)	
LC50 - Fish [1]	62.2 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Static system, Fresh water, Calculated value, Nominal concentration)
EC50 - Crustacea [1]	19.1 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 algae	87.57 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Calculated value, Nominal concentration)

L-(+)-tartaric acid (87-69-4)	
EC50 72h - Algae [1]	51.404 mg/l (OECD 201: Alga, Growth Inhibition Test, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Cell numbers)
Partition coefficient n-octanol/water (Log Pow)	-1.91 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 20 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0 (log Koc, SRC PCKOCWIN v2.0, Calculated value)

12.2. Persistence and degradability

HIT-FP 700-R, B	
Persistence and degradability	Not established.

citric acid (77-92-9)	
Not rapidly degradable	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.42 g O ₂ /g substance
Chemical oxygen demand (COD)	0.728 g O ₂ /g substance
ThOD	0.686 g O ₂ /g substance

Lithium sulphate (10377-48-7)	
Not rapidly degradable	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

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Lithium sulphate (10377-48-7)	
BOD (% of ThOD)	Not applicable
lithium hydroxide (1310-65-2)	
Not rapidly degradable	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)
L-(+)-tartaric acid (87-69-4)	
Not rapidly degradable	
Persistence and degradability	Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.35 g O ₂ /g substance
Chemical oxygen demand (COD)	0.42 g O ₂ /g substance
ThOD	0.53 g O ₂ /g substance

12.3. Bioaccumulative potential

HIT-FP 700-R, B	
Bioaccumulative potential	Not established.
citric acid (77-92-9)	
Partition coefficient n-octanol/water (Log Pow)	-1.8 – -1.55 (Experimental value)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Bioaccumulative potential	Not bioaccumulative.
Lithium sulphate (10377-48-7)	
Partition coefficient n-octanol/water (Log Pow)	-4.38 (Calculated, 20 °C)
Bioaccumulative potential	Not bioaccumulative.
lithium hydroxide (1310-65-2)	
Bioaccumulative potential	Not bioaccumulative.
L-(+)-tartaric acid (87-69-4)	
Partition coefficient n-octanol/water (Log Pow)	-1.91 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 20 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

HIT-FP 700-R, B	
Mobility in soil	No additional information available
citric acid (77-92-9)	
Surface tension	No data available in the literature
Partition coefficient n-octanol/water (Log Pow)	-1.8 – -1.55 (Experimental value)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Highly mobile in soil.

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Lithium sulphate (10377-48-7)	
Partition coefficient n-octanol/water (Log Pow)	-4.38 (Calculated, 20 °C)
Ecology - soil	No (test)data on mobility of the substance available.
lithium hydroxide (1310-65-2)	
Surface tension	No data available in the literature
Ecology - soil	Low potential for adsorption in soil.
L-(+)-tartaric acid (87-69-4)	
Surface tension	No data available in the literature
Partition coefficient n-octanol/water (Log Pow)	-1.91 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 20 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Highly mobile in soil.

12.5. Other adverse effects

Ozone	Not classified
Other adverse effects	No additional information available

SECTION 13: Disposal considerations

Product/Packaging disposal recommendations	Dispose in a safe manner in accordance with local/national regulations. After curing, the product can be disposed of with household waste.
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SECTION 14: Transport information

In accordance with IMDG / IATA / ADN / RID

	IMDG	IATA	ADN	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

Transport by sea
Not applicable

Air transport
Not applicable

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Inland waterway 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 specific for the product in question

No additional information available

15.2. International regulations

No additional information available

15.3 Chemical inventory status

No additional information available

SECTION 16: Other information

Issue date	24/10/2023
Revision date	24/10/2023
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 BOD - Biochemical oxygen demand (BOD) COD - Chemical oxygen demand (COD) DNEL - Derived-No Effect Level EC-No. - European Community number EC50 - Median effective concentration IATA - International Air Transport Association IMDG - International Maritime Dangerous Goods LC50 - Median lethal concentration LD50 - Median lethal dose 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 ThOD - Theoretical oxygen demand (ThOD) vPvB - Very Persistent and Very Bioaccumulative ED - Endocrine disrupting properties
Other information	None.

SDS_SG_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.