

CC412-1 Crack sealing compound

Safety information for 2-Component-products

Issue date: 27/01/2022

Revision date: 27/01/2022

Supersedes: 18/06/2021

Version: 5.0

SECTION 1: Kit identification

1.1 Product identifier

Product name	CC412-1 Crack sealing compound
Product code	BU Fire Protection

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

SECTION 2: General information

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

SECTION 3: Kit contents

Classification of the Product

GHS-US classification

Skin Corr. 1B	H314 - Causes severe skin burns and eye damage.
Eye Dam. 1	H318 - Causes serious eye damage.
Skin Sens. 1	H317 - May cause an allergic skin reaction.
Muta. 2	H341 - Suspected of causing genetic defects.
Aquatic Acute 1	H400 - Very toxic to aquatic life.
Aquatic Chronic 1	H410 - Very toxic to aquatic life with long lasting effects.

Label elements

GHS US labelling

Hazard pictograms (GHS US)



Signal word (GHS US)

Danger

Hazardous ingredients

2,3-epoxypropyl o-tolyl ether,(A) bis-[4-(2,3-epoxipropoxy)phenyl]propane(A), polyethylenepolyamines (B), Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol(B)

Hazard statements (GHS US)

Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
Causes serious eye damage.
Suspected of causing genetic defects.
Very toxic to aquatic life.
Very toxic to aquatic life with long lasting effects.

Precautionary statements (GHS US)

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe dust/fume/gas/mist/vapours/spray.
Avoid breathing dust/fume/gas/mist/vapours/spray.
Wash hands, forearms and face thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.
Avoid release to the environment.
Wear eye protection, protective clothing, protective gloves.
If swallowed: rinse mouth. Do NOT induce vomiting.
If on skin: Wash with plenty of water.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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Safety information for 2-Component-products

If inhaled: Remove person to fresh air and keep comfortable for breathing.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 If exposed or concerned: Get medical advice/attention.
 Immediately call a poison center or doctor.
 Specific treatment (see supplemental first aid instruction on this label).
 If skin irritation or rash occurs: Get medical advice/attention.
 Wash contaminated clothing before reuse.
 Collect spillage.
 Store locked up.
 Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Additional information

Name	General description	Quantity	Unit	GHS-US classification
CC412, A		1	pcs (pieces)	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317 Muta. 2, H341 Aquatic Chronic 2, H411
CC412, B		1	pcs (pieces)	Skin Corr. 1, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

SECTION 4: General advice

General advice For professional users only

SECTION 5: Safe handling advice

Environmental precautions Avoid release to the environment
 Prevent entry to sewers and public waters
 Storage conditions Store in a well-ventilated place. Keep cool.
 Store in a dry place.
 Precautions for safe handling Avoid contact with skin, eyes and clothing
 Do not eat, drink or smoke when using this product.
 Do not handle until all safety precautions have been read and understood.
 Methods for cleaning up Collect spillage.
 This material and its container must be disposed of in a safe way, and as per local legislation
 Incompatible products Oxidizing agent
 Strong acids
 Strong bases

SECTION 6: First aid measures

First-aid measures after eye contact If eye irritation persists: Get medical advice/attention.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 First-aid measures after ingestion Rinse mouth
 Call a physician immediately
 First-aid measures after inhalation Remove person to fresh air and keep comfortable for breathing.
 If you feel unwell, seek medical advice
 First-aid measures after skin contact Wash skin with plenty of water
 If skin irritation occurs: Get medical advice/attention.
 Symptoms/effects after eye contact Causes serious eye damage.



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Safety information for 2-Component-products

Symptoms/effects after ingestion	Burns
Symptoms/effects after skin contact	Burns May cause an allergic skin reaction.
Other medical advice or treatment	Treat symptomatically

SECTION 7: Fire fighting measures

Extinguishing agents - fire fighting instructions	Foam, carbon dioxide (CO ₂) and powder
Protection during firefighting	Do not attempt to take action without suitable protective equipment
Hazardous decomposition products in case of fire	Toxic fumes may be released

SECTION 8: Other information

No data available

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SECTION 1: Identification

1.1. Identification

Product form	Mixture
Product name	CC412, B
Product code	BU Fire Protection

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Supplier Hilti, Inc. Legacy Tower, Suite 1000 7250 Dallas Parkway Plano, TX 75024 - USA T +1 9724035800 1-800-879-8000 toll free - F +1 918 254 0522	Department issuing data specification sheet Hilti AG Feldkircherstraße 100 Schaan, 9494 - Liechtenstein T +423 234 2111 chemicals.hse@hilti.com
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1.4. Emergency telephone number

Emergency number	Chem-Trec Tel.: 1 800 424 9300 (USA, PR, Virgin Islands, Canada) Tel.: 703 527 3887 (Other countries) +1 918 8723000 1-800-879-8000 toll free
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SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Skin corrosion/irritation, Category 1	H314 Causes severe skin burns and eye damage.
Serious eye damage/eye irritation, Category 1	H318 Causes serious eye damage.
Skin sensitisation, Category 1	H317 May cause an allergic skin reaction.
Hazardous to the aquatic environment — Acute Hazard, Category 1	H400 Very toxic to aquatic life.
Hazardous to the aquatic environment — Chronic Hazard, Category 1	H410 Very toxic to aquatic life with long lasting effects.
Full text of H-statements: see section 16	

2.2. GHS Label elements, including precautionary statements

GHS US labelling

Hazard pictograms (GHS US)



Signal word (GHS US)

Danger

Hazard statements (GHS US)

H314 - Causes severe skin burns and eye damage.
H317 - May cause an allergic skin reaction.
H318 - Causes serious eye damage.
H400 - Very toxic to aquatic life.
H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements (GHS US)

P273 - Avoid release to the environment.
P280 - Wear eye protection, protective clothing, protective gloves.
P302+P352 - If on skin: Wash with plenty of water.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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P308+P313 - If exposed or concerned: Get medical advice/attention.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS-US classification
polyethylenepolyamines	(CAS-No.) 68131-73-7	30 – 50	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Corr. 1, H314 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Benzyl alcohol	(CAS-No.) 100-51-6	10 – 20	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	(CAS-No.) 9003-36-5	0.1 – 0.5	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general	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. Immediately call a POISON CENTER/doctor.
First-aid measures after skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER/doctor. Wash with plenty of water/.... If skin irritation or rash occurs: Get medical advice/attention. Specific treatment (see supplemental first aid instruction on this label). Wash contaminated clothing before reuse.
First-aid measures after eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
First-aid measures after ingestion	Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER/doctor if you feel unwell. Immediately call a POISON CENTER/doctor.

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

Potential adverse human health effects and symptoms	Harmful if swallowed.
Symptoms/effects	Causes severe skin burns and eye damage.
Symptoms/effects after inhalation	May cause an allergic skin reaction.
Symptoms/effects after eye contact	Causes serious eye damage.
Symptoms/effects after ingestion	Swallowing a small quantity of this material will result in serious health hazard.

4.3. Immediate medical attention and special treatment, if necessary

No additional information available

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SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) 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

No additional information available

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protection during firefighting	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

6.1.1. For non-emergency personnel

Emergency procedures	Evacuate unnecessary personnel.
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6.1.2. For emergency responders

Protective equipment	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. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.
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6.4. Reference to other sections

See Section 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	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. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid breathing dust/fume/gas/mist/vapours/spray.
Hygiene measures	Do not eat, drink or smoke when using this product. Wash hands, forearms and face thoroughly after handling. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	Comply with applicable regulations.
Storage conditions	Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use.
Incompatible products	Strong bases. Strong acids.
Incompatible materials	Sources of ignition. Direct sunlight.

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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No additional information available
Benzyl alcohol (100-51-6)
No additional information available
polyethylenepolyamines (68131-73-7)
No additional information available
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol (9003-36-5)
No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls Ensure good ventilation of the work station.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

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

Hand protection:

Wear protective gloves.

Eye protection:

Chemical goggles or face shield

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Wear appropriate mask

Personal protective equipment symbol(s):



Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Pasty.
Colour	Black
Odour	Amine-like
Odour threshold	No data available
pH	Not determined
Melting point	No data available
Freezing point	No data available
Boiling point	200 °C
Flash point	> 60 °C

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Relative evaporation rate (butylacetate=1)	No data available
Flammability (solid, gas)	Non flammable.
Vapour pressure	No data available
Relative vapour density at 20 °C	No data available
Relative density	1.3 – 1.4
Solubility	No data available
Partition coefficient n-octanol/water (Log Pow)	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity, kinematic	No data available
Viscosity, dynamic	No data available
Explosive limits	No data available
Explosive properties	No data available
Oxidising properties	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Corrosive vapours.

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

Not established.

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. Thermal decomposition generates : Corrosive vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

Benzyl alcohol (100-51-6)	
LD50 oral rat	1620 mg/kg
LC50 Inhalation - Rat	> 4178 mg/m ³

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol (9003-36-5)	
LD50 oral rat	> 5000 mg/kg bodyweight (Rat; ECHA)
LD50 dermal rat	> 2000 mg/kg bodyweight (Rat; ECHA)

Skin corrosion/irritation	Causes severe skin burns. pH: Not determined
Serious eye damage/irritation	Causes serious eye damage. pH: Not determined

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Respiratory or skin sensitisation	May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
STOT-single exposure	Not classified
STOT-repeated exposure	Not classified
Aspiration hazard	Not classified
Viscosity, kinematic	
Potential adverse human health effects and symptoms	Harmful if swallowed.
Symptoms/effects	Causes severe skin burns and eye damage.
Symptoms/effects after inhalation	May cause an allergic skin reaction.
Symptoms/effects after eye contact	Causes serious eye damage.
Symptoms/effects after ingestion	Swallowing a small quantity of this material will result in serious health hazard.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water Very toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

CC412, B	
Persistence and degradability	May cause long-term adverse effects in the environment.

12.3. Bioaccumulative potential

CC412, B	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations	Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
Ecology - waste materials	Avoid release to the environment.

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SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID /

ADR	IMDG	IATA	RID
14.1. UN number			
UN 2735	UN 2735	UN 2735	UN 2735
14.2. UN proper shipping name			
POLYAMINES, LIQUID, CORROSIVE, N.O.S. (polyethylenepolyamines)	POLYAMINES, LIQUID, CORROSIVE, N.O.S. (polyethylenepolyamines)	Polyamines, liquid, corrosive, n.o.s. (polyethylenepolyamines)	POLYAMINES, LIQUID, CORROSIVE, N.O.S. (polyethylenepolyamines)
Transport document description			
UN 2735 POLYAMINES, LIQUID, CORROSIVE, N.O.S. (polyethylenepolyamines), 8, III, (E), ENVIRONMENTALLY HAZARDOUS	UN 2735 POLYAMINES, LIQUID, CORROSIVE, N.O.S. (polyethylenepolyamines), 8, III, MARINE POLLUTANT/ENVIRONMENTAL LY HAZARDOUS	UN 2735 Polyamines, liquid, corrosive, n.o.s. (polyethylenepolyamines), 8, III, ENVIRONMENTALLY HAZARDOUS	UN 2735 POLYAMINES, LIQUID, CORROSIVE, N.O.S. (polyethylenepolyamines), 8, III, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard class(es)			
8	8	8	8
			
14.4. Packing group			
III	III	III	III
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)	C7
Special provisions (ADR)	274
Limited quantities (ADR)	5I
Packing instructions (ADR)	P001, IBC03, LP01, R001
Mixed packing provisions (ADR)	MP19
Transport category (ADR)	3
Orange plates	

Tunnel restriction code (ADR) E

Transport by sea

Special provisions (IMDG)	223, 274
Limited quantities (IMDG)	5 L
Packing instructions (IMDG)	P001, LP01
EmS-No. (Fire)	F-A
EmS-No. (Spillage)	S-B

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Stowage category (IMDG)	A
Segregation (IMDG)	SGG18, SG35
MFAG-No	153

Air transport

PCA packing instructions (IATA)	852
PCA max net quantity (IATA)	5L
CAO packing instructions (IATA)	856
Special provisions (IATA)	A3, A803

Rail transport

Special provisions (RID)	274
Limited quantities (RID)	5L
Packing instructions (RID)	P001, IBC03, LP01, R001

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

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Benzyl alcohol	CAS-No. 100-51-6	10 – 20%
polyethylenepolyamines	CAS-No. 68131-73-7	30 – 50%
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	CAS-No. 9003-36-5	0.1 – 0.5%

polyethylenepolyamines (68131-73-7)

EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
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Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol (9003-36-5)

EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
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15.2. International regulations

Benzyl alcohol (100-51-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

polyethylenepolyamines (68131-73-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol (9003-36-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

15.3. US State regulations

 **WARNING:** This product can expose you to Ethylbenzene, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

SECTION 16: Other information

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

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Revision date 01/27/2022

Data sources REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information None.

Full text of H-statements:

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Indication of changes:

Section	Changed item	Change	Comments
			change of substance identification

SDS_US_Hilti

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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SECTION 1: Identification

1.1. Identification

Product form	Mixture
Product name	CC412, A
Product code	BU Fire Protection

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Supplier	Department issuing data specification sheet
Hilti, Inc. Legacy Tower, Suite 1000 7250 Dallas Parkway Plano, TX 75024 - USA T +1 9724035800 1-800-879-8000 toll free - F +1 918 254 0522	Hilti AG Feldkircherstraße 100 Schaan, 9494 - Liechtenstein T +423 234 2111 chemicals.hse@hilti.com

1.4. Emergency telephone number

Emergency number	Chem-Trec Tel.: 1 800 424 9300 (USA, PR, Virgin Islands, Canada) Tel.: 703 527 3887 (Other countries) +1 918 8723000 1-800-879-8000 toll free
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SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Skin corrosion/irritation, Category 2	H315 Causes skin irritation.
Serious eye damage/eye irritation, Category 2A	H319 Causes serious eye irritation.
Skin sensitisation, Category 1	H317 May cause an allergic skin reaction.
Germ cell mutagenicity, Category 2	H341 Suspected of causing genetic defects.
Hazardous to the aquatic environment — Chronic Hazard, Category 2	H411 Toxic to aquatic life with long lasting effects.
Full text of H-statements: see section 16	

2.2. GHS Label elements, including precautionary statements

GHS US labelling

Hazard pictograms (GHS US)



Signal word (GHS US)

Warning

Hazard statements (GHS US)

H315 - Causes skin irritation.
 H317 - May cause an allergic skin reaction.
 H319 - Causes serious eye irritation.
 H341 - Suspected of causing genetic defects.
 H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (GHS US)

P273 - Avoid release to the environment.
 P280 - Wear eye protection, protective clothing, protective gloves.
 P302+P352 - If on skin: Wash with plenty of water.
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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P308+P313 - If exposed or concerned: Get medical advice/attention.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS-US classification
bis-[4-(2,3-epoxipropoxy)phenyl]propane	(CAS-No.) 1675-54-3	30 – 50	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317
2,3-epoxypropyl o-tolyl ether	(CAS-No.) 2210-79-9	10 – 30	Muta. 2, H341 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411
Quartz (SiO ₂)	(CAS-No.) 14808-60-7	10 – 20	Carc. 1A, H350
Titanium dioxide	(CAS-No.) 13463-67-7	0.1 – 0.5	Carc. 2, H351

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general	IF exposed or concerned: Get medical advice/attention. 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. If you feel unwell, seek medical advice. Allow affected person to breathe fresh air. Allow the victim to rest.
First-aid measures after skin contact	Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention. Wash with plenty of water/.... Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention. Specific treatment (see supplemental first aid instruction on this label). If skin irritation or rash occurs:
First-aid measures after eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	Call a poison center or a doctor if you feel unwell. Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

Potential adverse human health effects and symptoms	Based on available data, the classification criteria are not met.
Symptoms/effects after inhalation	May cause an allergic skin reaction.
Symptoms/effects after skin contact	Irritation. May cause an allergic skin reaction. Causes skin irritation.
Symptoms/effects after eye contact	Eye irritation. Causes serious eye irritation.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

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SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	Water spray. Dry powder. Foam. Carbon dioxide. 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	Toxic fumes may be released.
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5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protection during firefighting	Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. 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

6.1.1. For non-emergency personnel

Emergency procedures	Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust. Evacuate unnecessary personnel.
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6.1.2. For emergency responders

Protective equipment	Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". Equip cleanup crew with proper protection.
Emergency procedures	Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. 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

Methods for cleaning up	Mechanically recover the product. On land, sweep or shovel into suitable containers. Minimise generation of dust. Store away from other materials. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage.
Other information	Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

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	Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid contact with skin and eyes. Wear personal protective equipment. Avoid breathing dust. 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. Use personal protective equipment as required.
Hygiene measures	Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wash hands, forearms and face thoroughly after handling.

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7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	Store locked up. Store in a well-ventilated place. Keep cool. Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use.
Incompatible products	Strong bases. Strong acids.
Incompatible materials	Sources of ignition. Direct sunlight.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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No additional information available	
2,3-epoxypropyl o-tolyl ether (2210-79-9)	
No additional information available	
Quartz (SiO₂) (14808-60-7)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Silica crystalline - quartz
ACGIH OEL TWA	0.025 mg/m ³ (Respirable fraction)
Remark (ACGIH)	TLV® Basis: Pulm fibrosis; lung cancer. Notations: A2 (Suspected Human Carcinogen)
Regulatory reference	ACGIH 2022
USA - OSHA - Occupational Exposure Limits	
Local name	Silica, crystalline quartz, respirable dust
Remark (OSHA)	(3) See Table Z-3.
Titanium dioxide (13463-67-7)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Titanium dioxide
ACGIH OEL TWA	10 mg/m ³
Remark (ACGIH)	LRT irr; A3
Regulatory reference	ACGIH 2022
USA - OSHA - Occupational Exposure Limits	
Local name	Titanium dioxide (Total dust)
OSHA PEL TWA [1]	15 mg/m ³
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
bis-[4-(2,3-epoxipropoxy)phenyl]propane (1675-54-3)	
No additional information available	

8.2. Appropriate engineering controls

Appropriate engineering controls	Ensure good ventilation of the work station.
Environmental exposure controls	Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

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

Hand protection:

Gloves. EN 374. Wear protective gloves.

Eye protection:

Safety glasses. EN 166. EN 170. Chemical goggles or safety glasses

Skin and body protection:

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Wear suitable protective clothing

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection. Filter AX (brown). Wear appropriate mask

Personal protective equipment symbol(s):



Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Pasty.
Colour	Beige
Odour	mild
Odour threshold	No data available
pH	No data available
Melting point	No data available
Freezing point	Not applicable
Boiling point	No data available
Flash point	> 60 °C Not applicable
Relative evaporation rate (butylacetate=1)	No data available
Flammability (solid, gas)	Non flammable.
Vapour pressure	No data available
Relative vapour density at 20 °C	No data available
Relative density	No data available
Density	1.38 kg/l
Solubility	insoluble in water.
Partition coefficient n-octanol/water (Log Pow)	No data available
Auto-ignition temperature	Not applicable
Decomposition temperature	No data available
Viscosity, kinematic	Not applicable
Viscosity, dynamic	25000 – 30000 mPa·s
Explosive limits	Not applicable
Explosive properties	No data available
Oxidising properties	No data available

9.2. Other information

VOC content	0 %
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SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions. Not established.

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10.3. Possibility of hazardous reactions

No additional information available. Not established.

10.4. Conditions to avoid

Heat. Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases. Oxidizing agent.

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) Not classified

Acute toxicity (dermal) Not classified

Acute toxicity (inhalation) Not classified

2,3-epoxypropyl o-tolyl ether (2210-79-9)

LD50 oral rat	> 5000 mg/kg (Rat, Oral)
LD50 dermal rat	> 2000 mg/kg (Rat, Dermal)
LC50 Inhalation - Rat	6.09 mg/l (4 h, Rat, Inhalation)

Titanium dioxide (13463-67-7)

LD50 oral rat	> 2000 mg/kg bodyweight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s))
LC50 Inhalation - Rat	> 5.09 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male, Experimental value, Inhalation (dust), 14 day(s))

bis-[4-(2,3-epoxipropoxy)phenyl]propane (1675-54-3)

LD50 oral rat	> 2000 mg/kg (Rat; OECD 420: Acute Oral toxicity – Acute Toxic Class Method; Experimental value)
LD50 dermal rat	> 2000 mg/kg (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)

Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/irritation	Causes serious eye irritation.
Respiratory or skin sensitisation	May cause an allergic skin reaction.
Germ cell mutagenicity	Suspected of causing genetic defects.
Carcinogenicity	Not classified

Quartz (SiO2) (14808-60-7)

IARC group	1 - Carcinogenic to humans
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Titanium dioxide (13463-67-7)

IARC group	2B - Possibly carcinogenic to humans
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bis-[4-(2,3-epoxipropoxy)phenyl]propane (1675-54-3)

IARC group	3 - Not classifiable
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Reproductive toxicity Not classified

STOT-single exposure Not classified

STOT-repeated exposure Not classified

Aspiration hazard Not classified

Viscosity, kinematic Not applicable

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Potential adverse human health effects and symptoms

Symptoms/effects after inhalation

Symptoms/effects after skin contact

Symptoms/effects after eye contact

Based on available data, the classification criteria are not met.

May cause an allergic skin reaction.

Irritation. May cause an allergic skin reaction. Causes skin irritation.

Eye irritation. Causes serious eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general

Harmful to aquatic life with long lasting effects.

Ecology - water

Toxic to aquatic life with long lasting effects.

2,3-epoxypropyl o-tolyl ether (2210-79-9)	
LC50 - Fish [1]	1 – 10 mg/l (Pisces)
EC50 - Crustacea [1]	1 – 10 mg/l (Invertebrata)
Titanium dioxide (13463-67-7)	
LC50 - Fish [1]	> 100 mg/l (Equivalent or similar to OECD 203, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value, Nominal concentration)
LC50 - Other aquatic organisms [1]	> 500 mg/l
ErC50 algae	61 mg/l (EPA 600/9-78-018, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)
bis-[4-(2,3-epoxypropoxy)phenyl]propane (1675-54-3)	
LC50 - Fish [1]	1.2 mg/l (96 h; Oncorhynchus mykiss; Lethal)
LC50 - Fish [2]	2.3 mg/l (96 h; Oncorhynchus mykiss; Nominal concentration)
Threshold limit - Algae [1]	> 11 mg/l (72 h; Scenedesmus sp.)
Threshold limit - Algae [2]	4.2 mg/l (72 h; Scenedesmus sp.)

12.2. Persistence and degradability

CC412, A	
Persistence and degradability	May cause long-term adverse effects in the environment.
2,3-epoxypropyl o-tolyl ether (2210-79-9)	
Persistence and degradability	Biodegradability in soil: no data available. Not readily biodegradable in water.
Quartz (SiO2) (14808-60-7)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)
Titanium dioxide (13463-67-7)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

12.3. Bioaccumulative potential

CC412, A	
Bioaccumulative potential	Not established.
2,3-epoxypropyl o-tolyl ether (2210-79-9)	
Partition coefficient n-octanol/water (Log Pow)	2.16 (Estimated value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
Quartz (SiO2) (14808-60-7)	
Bioaccumulative potential	No bioaccumulation data available.
Titanium dioxide (13463-67-7)	
Bioaccumulative potential	Not bioaccumulative.

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bis-[4-(2,3-epoxipropoxi)phenyl]propane (1675-54-3)	
BCF - Other aquatic organisms [1]	31 (Estimated value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	≥ 2.918 (Experimental value; EU Method A.8: Partition Coefficient; 25 °C)
Bioaccumulative potential	Low bioaccumulation potential (BCF < 500).

12.4. Mobility in soil

Quartz (SiO2) (14808-60-7)	
Surface tension	No data available in the literature
Ecology - soil	Low potential for mobility in soil.

Titanium dioxide (13463-67-7)	
Surface tension	No data available in the literature
Ecology - soil	Low potential for mobility in soil.

bis-[4-(2,3-epoxipropoxi)phenyl]propane (1675-54-3)	
Surface tension	59 mN/m (20 °C, 0.09 g/l)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.65 (log Koc, SRC PCKOCWIN v2.0, QSAR)
Ecology - soil	Low potential for adsorption in soil.

12.5. Other adverse effects

Other information

Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods

Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations

Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Ecology - waste materials

Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID /

ADR	IMDG	IATA	RID
14.1. UN number			
UN 3082	UN 3082	UN 3082	UN 3082
14.2. UN proper shipping name			
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bis-[4-(2,3-epoxipropoxi)phenyl]propane)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bis-[4-(2,3-epoxipropoxi)phenyl]propane)	Environmentally hazardous substance, liquid, n.o.s. (bis-[4-(2,3-epoxipropoxi)phenyl]propane)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bis-[4-(2,3-epoxipropoxi)phenyl]propane)
Transport document description			
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bis-[4-(2,3-epoxipropoxi)phenyl]propane), 9, III, (-)	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bis-[4-(2,3-epoxipropoxi)phenyl]propane), 9, III	UN 3082 Environmentally hazardous substance, liquid, n.o.s. (bis-[4-(2,3-epoxipropoxi)phenyl]propane), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bis-[4-(2,3-epoxipropoxi)phenyl]propane), 9, III

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ADR	IMDG	IATA	RID
14.3. Transport hazard class(es)			
9	9	9	9
14.4. Packing group			
III	III	III	III
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
Environmentally hazardous substances derogation applies (quantity of liquids ≤ 5 litres or net mass of solids ≤ 5 kg). The environmentally hazardous substance mark is therefore not required, as stated in the ADR regulation, section 5.2.1.8.1.			
not restricted according ADR Special Provision SP375, IATA-DGR Special Provision A197 and IMDG-Code 2.10.2.7			

14.6. Special precautions for user

Overland transport

Classification code (ADR)	M6
Special provisions (ADR)	274, 335, 375, 601
Limited quantities (ADR)	5L
Packing instructions (ADR)	P001, IBC03, LP01, R001
Mixed packing provisions (ADR)	MP19
Transport category (ADR)	3
Orange plates	90 3082

Tunnel restriction code (ADR)

-

Transport by sea

Special provisions (IMDG)	274, 335, 969
Limited quantities (IMDG)	5 L
Packing instructions (IMDG)	LP01, P001
EmS-No. (Fire)	F-A
EmS-No. (Spillage)	S-F
Stowage category (IMDG)	A
MFAG-No	171

Air transport

PCA packing instructions (IATA)	964
PCA max net quantity (IATA)	450L
CAO packing instructions (IATA)	964
Special provisions (IATA)	A97, A158, A197, A215

Rail transport

Special provisions (RID)	274, 335, 375, 601
Limited quantities (RID)	5L
Packing instructions (RID)	P001, IBC03, LP01, R001

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

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

2,3-epoxypropyl o-tolyl ether	CAS-No. 2210-79-9	10 – 30%
Quartz (SiO ₂)	CAS-No. 14808-60-7	10 – 20%
Titanium dioxide	CAS-No. 13463-67-7	0.1 – 0.5%
bis-[4-(2,3-epoxipropoxy)phenyl]propane	CAS-No. 1675-54-3	30 – 50%

2,3-epoxypropyl o-tolyl ether (2210-79-9)

EPA TSCA Regulatory Flag

TP - TP - indicates a substance that is the subject of a proposed TSCA section 4 test rule.

15.2. International regulations

2,3-epoxypropyl o-tolyl ether (2210-79-9)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Quartz (SiO₂) (14808-60-7)

Listed on IARC (International Agency for Research on Cancer)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Titanium dioxide (13463-67-7)

Listed on IARC (International Agency for Research on Cancer)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

bis-[4-(2,3-epoxipropoxy)phenyl]propane (1675-54-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

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Revision date

01/27/2022

Data sources

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information

None.

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Full text of H-statements:

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H351	Suspected of causing cancer.
H411	Toxic to aquatic life with long lasting effects.

Indication of changes:

Section	Changed item	Change	Comments
14		Modified	

SDS_US_Hilti

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.