Hilti Crack Injection System CI 060

Safety information for 2-Component-products

Issue date: 25/07/2022 Revision date: 25/07/2022 Supersedes: 08/02/2021 Version: 9.0

SECTION 1: Kit identification

1.1 Product identifier

Product name	Hilti Crack Injection System CI 060
Product code	BU Fire Protection

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

Hilti (Aust.) Pty. Ltd.
Level 5, 1G Homebush Bay Drive
P.O. Box 3217
2138 Rhodes NSW - Australia
T +61 131 292 - F +61 1300 135 042
serviceaustralia@hilti.com

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:

Classification of the Product

2.1. Classification of the hazardous chemical

Classification according to the model Work Health and Safety Regulations (WHS Regulations)

Acute toxicity (oral), Category 4	H302
Acute toxicity (dermal), Category 4	H312
Skin corrosion/irritation, Category 1	H314
Skin sensitisation, Category 1	H317
Germ cell mutagenicity, Category 2	H341
Hazardous to the aquatic environment – Acute Hazard, Category 1	H400
Hazardous to the aquatic environment – Chronic Hazard, Category 1	H410

2.2. Label elements

Hazard pictograms (GHS AU)

GHS05 GHS07 GHS08 GHS09

Signal word (GHS AU)	Danger
Hazard statements (GHS AU)	H302+H312 - Harmful if swallowed or in contact with skin H314 - Causes severe skin burns and eye damage H317 - May cause an allergic skin reaction H341 - Suspected of causing genetic defects H410 - Very toxic to aquatic life with long lasting effects
Precautionary statements (GHS AU)	P260 - Do not breathe vapours. P273 - Avoid release to the environment.

P280 - Wear eye protection, protective clothing, protective gloves.
P302+P352 - IF ON SKIN: Wash with plenty of soap and 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.
P308+P313 - IF exposed or concerned: Get medical advice/attention.

2.3. Other hazards not contributing to the classification

No additional information available

Additional information

Name	General description	Quantity	Unit	Classification according to the model Work Health and Safety Regulations (WHS Regulations)
CI 060, A		1	pcs (pieces)	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317 Muta. 2, H341 Aquatic Chronic 2, H411
CI 060, B		1	pcs (pieces)	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

SECTION 4: General advice

No data available

SECTION 5: Safe handling advice

Environmental precautions	Avoid release to the environment
Storage conditions	Store locked up. Store in a well-ventilated place. Keep cool.
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. Do not get in eyes, on skin, or on clothing. Wear personal protective equipment Avoid breathing vapours.
Methods for cleaning up	Notify authorities if product enters sewers or public waters
For containment	Collect spillage.

SECTION 6: First aid measures

First-aid measures after eye contact	Rinse eyes with water as a precaution
First-aid measures after ingestion	Rinse mouth Call a poison center or a doctor if you feel unwell
First-aid measures after inhalation	Remove person to fresh air and keep comfortable for breathing.
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.
First-aid measures general	IF exposed or concerned: Get medical advice/attention. Call a poison center or a doctor if you feel unwell
Symptoms/effects after skin contact	May cause an allergic skin reaction.
Other medical advice or treatment	Treat symptomatically

SECTION 7: Fire fighting measures

Protection during firefighting	Do not attempt to take action without suitable protective equipment Self-contained breathing apparatus Complete protective clothing
Hazardous decomposition products in case of fire	Toxic fumes may be released

SECTION 8: Other information

No data available

CI 060, B

Safety Data Sheet

according to the Work Health and Safety (WHS) Regulations

Issue date: 25/07/2022 Revision date: Version: 1.0

SECTION 1: Product identifier

1.1. GHS Product identifier

Product form	Mixture
Product name	CI 060, B
Product code	BU Fire Protection

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

No additional information available

1.4. Details of manufacturer or importer

Hilti (Aust.) Pty. Ltd.
Level 5, 1G Homebush Bay Drive
P.O. Box 3217
2138 Rhodes NSW - Australia
T +61 131 292 - F +61 1300 135 042
serviceaustralia@hilti.com

1.5. Emergency phone number

Emergency number +61 2 8748 1000

SECTION 2: Hazard identification

2.1. Classification of the hazardous chemical

Classification according to the model Work Health and Safety Regulations (WHS Regulations)

Acute toxicity (oral), Category 4	H302
Acute toxicity (dermal), Category 4	H312
Skin corrosion/irritation, Category 1	H314
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

2.2. GHS Label elements, including precautionary statements

Hazard pictograms (GHS AU)

Signal word (GHS AU)	Danger
Contains	polyethylenepolyamines (70 – 90 %); Benzyl alcohol (10 – 30 %)
Hazard statements (GHS AU)	H302+H312 - Harmful if swallowed or in contact with skin H314 - Causes severe skin burns and eye damage H317 - May cause an allergic skin reaction H410 - Very toxic to aquatic life with long lasting effects
Precautionary statements (GHS AU)	P260 - Do not breathe vapours. P273 - Avoid release to the environment. P280 - Wear eye protection, protective clothing, protective gloves. P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. P302+P352 - IF ON SKIN: Wash with plenty of soap and 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.

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3: Composition and information on ingredients

Name	CAS-No.	%	Classification according to the model Work Health and Safety Regulations (WHS Regulations)
polyethylenepolyamines	68131-73-7	70 – 90	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Benzyl alcohol	100-51-6	10 – 30	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:gas), H332 Eye Irrit. 2A, H319

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).

First-aid measures after inhalation: Allow affected person to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Immediately call a POISON CENTER/doctor. Specific measures (see supplemental first aid instruction on this label). Wash with plenty of water/…. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention. Specific treatment (see supplemental first aid instruction on this label).

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. Obtain emergency medical attention. Call a POISON CENTER/doctor if you feel unwell.

4.2. Symptoms caused by exposure

Symptoms/effects after inhalation: May cause an allergic skin reaction.

Symptoms/effects after skin contact: Repeated exposure to this material can result in absorption through skin causing significant health hazard.

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. Medical attention and special treatment

No additional information available

SECTION 5: Fire-fighting measures

5.1. 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

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.

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 materials 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.

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. 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. 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 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 and personal protection

8.1. Control parameters - exposure standards

No additional information available

8.2. Biological Monitoring

No additional information available

8.3. Engineering controls

No additional information available

8.4. Individual protection measures, such as personal protective equipment (PPE)

Personal protective equipment	Gloves. Protective clothing. Protective goggles. Avoid all unnecessary exposure.
Hand protection	Wear protective gloves.
Eye protection	Chemical goggles or safety glasses
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

Physical state	Liquid
Appearance	No data available
Colour	Black
Odour	Amine-like
Odour threshold	No data available
pH	12 Concentration (%): 100; Temperature: 20 °C
Relative evaporation rate (butylacetate=1)	No data available
Melting point / Freezing point	No data available
Boiling point	No data available
Flash point	> 60 °C
Auto-ignition temperature	No data available
Flammability (solid, gas)	No data available
Vapour pressure	No data available
Relative density	No data available
Density	Density : 1.05 kg/l
Solubility	Soluble in water.
Partition coefficient n-octanol/water (Log Pow)	No data available
Viscosity, kinematic	150 – 190 mm²/s Temperature: 20 °C
Viscosity, dynamic	110 – 120 Pa·s
Explosive properties	No data available
Explosive limits	No data available
Minimum ignition energy	No data available
Fat solubility	No data available

SECTION 10: Stability and reactivity

Reactivity	No additional information available
Chemical stability	Not established.
Possibility of hazardous reactions	Not established.
Conditions to avoid	Direct sunlight. Extremely high or low temperatures.
Incompatible materials	Strong acids. Strong bases.
Hazardous decomposition products	fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

Acute toxicity (oral)	Harmful if swallowed.
Acute toxicity (dermal)	Harmful in contact with skin.
Acute toxicity (inhalation)	Not classified

ATE AU (oral)	503.731 mg/kg bodyweight

ATE AU (dermal)	1222.222 mg/kg bodyweight

Benzyl alcohol (100-51-6)	
LD50 oral rat	1620 mg/kg
LC50 Inhalation - Rat	> 4178 mg/m³

Skin corrosion/irritation	Causes severe skin burns. pH: 12 Concentration (%): 100; Temperature: 20 °C
Serious eye damage/irritation	Assumed to cause serious eye damage pH: 12 Concentration (%): 100; Temperature: 20 °C
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

CI 060, B	
Viscosity, kinematic	150 – 190 mm²/s Temperature: 20 °C

Potential adverse human health effects and symptoms	Harmful if swallowed. Harmful in contact with skin.

SECTION 12: Ecological information

According to the National Code of Practice for the Preparation of Material Safety Data Sheets, Environmental classification information is not mandatory. Information relevant for GHS classification is available on request

12.1. Ecotoxicity

Ecology - water	Very toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short–term (acute)	Very toxic to aquatic life.
Hazardous to the aquatic environment, long–term (chronic)	Very toxic to aquatic life with long lasting effects.
Other information	Avoid release to the environment.

12.2. Persistence and degradability

CI 060, B	
Persistence and degradability	May cause long-term adverse effects in the environment.

12.3. Bioaccumulative potential

CI 060, B	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Ozone	Not classified
Other adverse effects	No additional information available

CI 060, B	
Fluorinated greenhouse gases	False

Benzyl alcohol (100-51-6)	
Fluorinated greenhouse gases	False

polyethylenepolyamines (68131-73-7)	
Fluorinated greenhouse gases	False

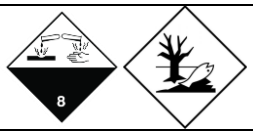
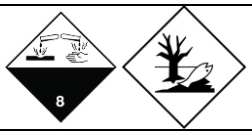
SECTION 13: Disposal considerations

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 2735	UN 2735	UN 2735	UN 2735
14.2. UN proper shipping name			
AMINES, LIQUID, CORROSIVE, N.O.S. / POLYAMINES, LIQUID, CORROSIVE, N.O.S. (pentaethylenehexamine)	AMINES, LIQUID, CORROSIVE, N.O.S. (Pentaethylenehexamine)	Amines, liquid, corrosive, n.o.s. (Pentaethylenehexamine)	AMINES, LIQUID, CORROSIVE, N.O.S. (Pentaethylenehexamine)
Transport document description			
UN 2735 AMINES, LIQUID, CORROSIVE, N.O.S. / POLYAMINES, LIQUID, CORROSIVE, N.O.S. (pentaethylenehexamine), 8, III, (E)	UN 2735 AMINES, LIQUID, CORROSIVE, N.O.S. (Pentaethylenehexamine), 8, III	UN 2735 Amines, liquid, corrosive, n.o.s. (Pentaethylenehexamine), 8, III	UN 2735 AMINES, LIQUID, CORROSIVE, N.O.S. (Pentaethylenehexamine), 8, III
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
The environmentally hazardous substance mark is not required when transported in quantities of ≤ 5 litres (liquids) or ≤ 5 kg net mass of solids (ADR 5.2.1.8.1; IMDG Code 2.10.2.7; IATA 7.1.5.3).			
No supplementary information available			

14.6. Special precautions for user

Overland transport

Classification code (ADR): C7
Special provisions (ADR): 274
Limited quantities (ADR): 5l

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
Stowage category (IMDG)	A
Segregation (IMDG)	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

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

14.8. Hazchem or Emergency Action Code

Hazchem Code: Not applicable

SECTION 15: Regulatory information

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

No additional information available

15.2. International agreements

No additional information available

SECTION 16: Other information

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.

Classification:

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

Full text of H-statements:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation:gas)	Acute toxicity (inhalation:gas) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
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. 2A	Serious eye damage/eye irritation, Category 2A
Skin Corr. 1	Skin corrosion/irritation, Category 1
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Sens. 1	Skin sensitisation, Category 1
H302	Harmful if swallowed
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H332	Harmful if inhaled
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

SDS_AU_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.

CI 060, A

Safety Data Sheet

according to the Work Health and Safety (WHS) Regulations

Issue date: 25/07/2022 Revision date: Version: 1.0

SECTION 1: Product identifier

1.1. GHS Product identifier

Product form	Mixture
Product name	CI 060, A
Product code	BU Fire Protection

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

No additional information available

1.4. Details of manufacturer or importer

Hilti (Aust.) Pty. Ltd.
Level 5, 1G Homebush Bay Drive
P.O. Box 3217
2138 Rhodes NSW - Australia
T +61 131 292 - F +61 1300 135 042
serviceaustralia@hilti.com

1.5. Emergency phone number

Emergency number +61 2 8748 1000

SECTION 2: Hazard identification

2.1. Classification of the hazardous chemical

Classification according to the model Work Health and Safety Regulations (WHS Regulations)

Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 2A	H319
Skin sensitisation, Category 1	H317
Germ cell mutagenicity, Category 2	H341
Hazardous to the aquatic environment – Chronic Hazard, Category 2	H411

2.2. GHS Label elements, including precautionary statements

Hazard pictograms (GHS AU)

Signal word (GHS AU)	Warning
Contains	bis-[4-(2,3-epoxypropoxy)phenyl]propane (70 – 90 %); 2,3-epoxypropyl o-tolyl ether (25 – 30 %)
Hazard statements (GHS AU)	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 AU)	P273 - Avoid release to the environment. P280 - Wear eye protection, protective clothing, protective gloves. P302+P352 - IF ON SKIN: Wash with plenty of soap and 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. 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

SECTION 3: Composition and information on ingredients

Name	CAS-No.	%	Classification according to the model Work Health and Safety Regulations (WHS Regulations)
bis-[4-(2,3-epoxypropoxy)phenyl]propane	1675-54-3	70 – 90	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411
2,3-epoxypropyl o-tolyl ether	2210-79-9	25 – 30	Skin Irrit. 2, H315 Skin Sens. 1, H317 Muta. 2, H341 Aquatic Chronic 2, H411

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).
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	Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	Rinse mouth. Do not induce vomiting. Call a physician immediately. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Symptoms caused by exposure

Symptoms/effects after inhalation	May cause an allergic skin reaction.
Symptoms/effects after skin contact	Burns. May cause an allergic skin reaction. Causes skin irritation.
Symptoms/effects after eye contact	Serious damage to eyes. Causes serious eye irritation.
Symptoms/effects after ingestion	Burns.

4.3. Medical attention and special treatment

Other medical advice or treatment	Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media	Dry powder. Foam. 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	Toxic fumes may be released.

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. Do not breathe vapours. Evacuate unnecessary personnel.

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 materials for containment and cleaning up

For containment	Collect spillage.
Methods for cleaning up	Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

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. Do not breathe vapours. Wear personal protective equipment. 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. Avoid breathing dust/fume/gas/mist/vapours/spray. 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.

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 and personal protection

8.1. Control parameters - exposure standards

No additional information available

8.2. Biological Monitoring

No additional information available

8.3. Engineering controls

Appropriate engineering controls: Ensure good ventilation of the work station.

8.4. Individual protection measures, such as personal protective equipment (PPE)

Personal protective equipment: Gloves. Protective clothing. Protective goggles. Avoid all unnecessary exposure.

Hand protection: Wear protective gloves.

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Reusable gloves	Butyl rubber, Fluoroelastomer (FKM), Polyvinylalcohol (PVA)	3 (> 60 minutes)			EN ISO 374

Eye protection: Chemical goggles or safety glasses

Type	Field of application	Characteristics	Standard
Safety glasses			EN 166, EN 170

Skin and body protection: Wear suitable protective clothing

Respiratory protection: [In case of inadequate ventilation] wear respiratory protection. Wear appropriate mask

Personal protective equipment symbol(s)

Environmental exposure controls: Avoid release to the environment.

Other information: Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

Physical state	Liquid
Appearance	No data available
Colour	yellowish
Odour	mild
Odour threshold	No data available
pH	No data available
Relative evaporation rate (butylacetate=1)	No data available
Melting point / Freezing point	Melting point : Not applicable
Boiling point	> 200 °C
Flash point	138 °C
Auto-ignition temperature	No data available
Decomposition temperature	> 200 °C
Flammability (solid, gas)	No data available
Vapour pressure	Vapour pressure : 0.01 hPa
Relative density	No data available
Density	Density : 1.15 kg/l
Solubility	insoluble in water.
Partition coefficient n-octanol/water (Log Pow)	No data available
Viscosity, kinematic	400 – 570 mm²/s
Explosive properties	No data available

Explosive limits	No data available
Minimum ignition energy	No data available
Fat solubility	No data available

SECTION 10: Stability and reactivity

Reactivity	The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	Stable under normal conditions. Not established.
Possibility of hazardous reactions	No dangerous reactions known under normal conditions of use. Not established.
Conditions to avoid	Heat. Direct sunlight. Extremely high or low temperatures.
Incompatible materials	Strong acids. Strong bases. Oxidizing agent.
Hazardous decomposition products	fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

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)

bis-[4-(2,3-epoxypropoxy)phenyl]propane (1675-54-3)	
LD50 oral rat	> 19800 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
Reproductive toxicity	Not classified
STOT-single exposure	Not classified
STOT-repeated exposure	Not classified
Aspiration hazard	Not classified

CI 060, A	
Viscosity, kinematic	400 – 570 mm²/s

Potential adverse human health effects and symptoms	Based on available data, the classification criteria are not met

SECTION 12: Ecological information

According to the National Code of Practice for the Preparation of Material Safety Data Sheets, Environmental classification information is not mandatory. Information relevant for GHS classification is available on request

12.1. Ecotoxicity

Ecology - general	Toxic to aquatic life with long lasting effects.
Ecology - water	Toxic to aquatic life with long lasting effects.

Hazardous to the aquatic environment, short–term (acute)	Not classified
Hazardous to the aquatic environment, long–term (chronic)	Toxic to aquatic life with long lasting effects.
Other information	Avoid release to the environment.

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)
Partition coefficient n-octanol/water (Log Pow)	2.16 (Estimated value)

bis-[4-(2,3-epoxypropoxy)phenyl]propane (1675-54-3)	
LC50 - Fish [1]	1.75 mg/l LC50 96h fish - Oncorhynchus mykiss (Rainbow trout)
EC50 - Crustacea [1]	2.8 mg/l EC50 48h - Daphnia magna
Partition coefficient n-octanol/water (Log Pow)	≥ 2.918 (Experimental value; EU Method A.8: Partition Coefficient; 25 °C)
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

CI 060, 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.

bis-[4-(2,3-epoxypropoxy)phenyl]propane (1675-54-3)	
Not rapidly degradable	
Persistence and degradability	Biodegradability in water: no data available.

12.3. Bioaccumulative potential

CI 060, 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).

bis-[4-(2,3-epoxypropoxy)phenyl]propane (1675-54-3)	
Partition coefficient n-octanol/water (Log Pow)	≥ 2.918 (Experimental value; EU Method A.8: Partition Coefficient; 25 °C)
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

2,3-epoxypropyl o-tolyl ether (2210-79-9)	
Partition coefficient n-octanol/water (Log Pow)	2.16 (Estimated value)

bis-[4-(2,3-epoxypropoxy)phenyl]propane (1675-54-3)	
Surface tension	59 mN/m (20 °C, 0.09 g/l)
Partition coefficient n-octanol/water (Log Pow)	≥ 2.918 (Experimental value; EU Method A.8: Partition Coefficient; 25 °C)
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

CI 060, A	
Fluorinated greenhouse gases	False

2,3-epoxypropyl o-tolyl ether (2210-79-9)	
Fluorinated greenhouse gases	False

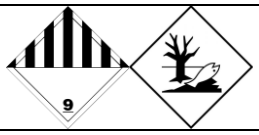
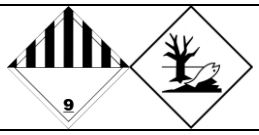
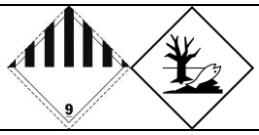
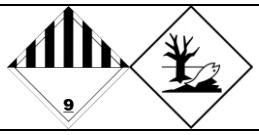
bis-[4-(2,3-epoxypropoxy)phenyl]propane (1675-54-3)	
Fluorinated greenhouse gases	False

SECTION 13: Disposal considerations

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
Special provision(s) applied : 375	Special provision(s) applied : 969	Special provision(s) applied : A197	Special provision(s) applied : 375
These substances when carried in single or combination packagings containing a net quantity per single or inner packaging of 5 l or less for liquids or having a net mass per single or inner packaging of 5 kg or less for solids, are not subject to any other provisions of ADR provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.			
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-epoxypropoxy)phenyl]propane ; 2,3-epoxypropyl o-tolyl ether)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bis-[4-(2,3-epoxypropoxy)phenyl]propane ; 2,3-epoxypropyl o-tolyl ether)	Environmentally hazardous substance, liquid, n.o.s. (bis-[4-(2,3-epoxypropoxy)phenyl]propane ; 2,3-epoxypropyl o-tolyl ether)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bis-[4-(2,3-epoxypropoxy)phenyl]propane ; 2,3-epoxypropyl o-tolyl ether)
Transport document description			
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bis-[4-(2,3-epoxypropoxy)phenyl]propane ; 2,3-epoxypropyl o-tolyl ether), 9, III, (-)	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bis-[4-(2,3-epoxypropoxy)phenyl]propane ; 2,3-epoxypropyl o-tolyl ether), 9, III	UN 3082 Environmentally hazardous substance, liquid, n.o.s. (bis-[4-(2,3-epoxypropoxy)phenyl]propane ; 2,3-epoxypropyl o-tolyl ether), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bis-[4-(2,3-epoxypropoxy)phenyl]propane ; 2,3-epoxypropyl o-tolyl ether), 9, III
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 according to ADR Special Provision 375, IATA-DGR A197 and IMDG-Code 2.10.2.7.			
No supplementary information available			

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	
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

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

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

Not applicable

14.8. Hazchem or Emergency Action Code

Hazchem Code: Not applicable

SECTION 15: Regulatory information

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

No additional information available

15.2. International agreements

No additional information available

SECTION 16: Other information

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.

Classification:

Skin Irrit. 2	H315

Eye Irrit. 2A	H319
Skin Sens. 1	H317
Muta. 2	H341
Aquatic Chronic 2	H411

Full text of H-statements:

Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Flam. Liq. 4	Flammable liquids, Category 4
Muta. 2	Germ cell mutagenicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
H227	Combustible liquid
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

SDS_AU_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.