CP 678

Safety Data Sheet

according to the United Nations GHS (Rev. 4, 2011)

Issue date: 01/10/2021 Revision date: 01/10/2021 Supersedes: 07/10/2019 Version: 6.0

SECTION 1: Identification

1.1. GHS Product identifier

Product form	Mixture
Trade name	CP 678
UN-No. (ADR)	3077
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

Use of the substance/mixture	Firestop coating

1.4. Supplier's details

Supplier	**Department issuing data specification sheet**
Hilti Qatar W.L.L.	Hilti AG
Souq Al Rawda	Feldkircherstraße 100
Salwa Road	9494 Schaan - Liechtenstein
P.O. Box 24097	T +423 234 2111
Doha Ad Dawḩah - Qatar	
T +974 4406 3600 - F +974 4406 3669	

1.5. Emergency phone number

Emergency number	Schweizerisches Toxikologisches Informationszentrum – 24h Service +41 44 251 51 51 (international) +974 4406 3600

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification according to the United Nations GHS

Carcinogenicity, Category 2	H351	Calculation method
Reproductive toxicity, Category 2	H361	Calculation method
Hazardous to the aquatic environment — Chronic Hazard, Category 1	H410	Calculation method

Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects	Suspected of causing cancer,Harmful to aquatic life with long lasting effects.

2.2. GHS Label elements, including precautionary statements

Labelling according to the United Nations GHS

Hazard pictograms (GHS UN)

GHS08 GHS09

Signal word (GHS UN)	Warning
Hazardous ingredients	Tris[2-chloro-1-(chloromethyl)ethyl] phosphate; melamine
Hazard statements (GHS UN)	H351 - Suspected of causing cancer H361 - Suspected of damaging fertility or the unborn child H410 - Very toxic to aquatic life with long lasting effects
Precautionary statements (GHS UN)	P201 - Obtain special instructions before use. P273 - Avoid release to the environment. P280 - Wear eye protection, protective clothing, protective gloves. P302+P352 - IF ON SKIN: Wash with plenty of water/.... P308+P313 - IF exposed or concerned: Get medical advice, medical attention.

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	Product identifier	%	Classification according to the United Nations GHS
melamine	(CAS-No.) 108-78-1	10 – 15	Acute toxicity (oral), Category 5, H303 Carcinogenicity, Category 2, H351 Reproductive toxicity, Category 2, H361 Hazardous to the aquatic environment - Acute Hazard Not classified
Tris[2-chloro-1-(chloromethyl)ethyl] phosphate	(CAS-No.) 13674-87-8	1 – 5	Flammable liquids Not classified Acute toxicity (dermal) Not classified Acute toxicity (inhalation:dust,mist) Not classified Carcinogenicity, Category 2, H351 Hazardous to the aquatic environment — Acute Hazard, Category 2, H401 Hazardous to the aquatic environment — Chronic Hazard, Category 1, H410 (M=10)

Full text of H-statements: see section 16

SECTION 4: First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures general	IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell.
First-aid measures after skin contact	Wash skin with plenty of water.
First-aid measures after eye contact	Rinse eyes with water as a precaution.

First-aid measures after ingestion	Get medical advice/attention if you feel unwell. Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms/effects, acute and delayed

No additional information available

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media	Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire	Carbon dioxide. Carbon monoxide.

5.3. Special protective actions for fire-fighters

Protection during firefighting	Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

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.

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".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and materials for containment and cleaning up

Methods for cleaning up	Mechanically recover the product. Notify authorities if product enters sewers or public waters.
Other information	Dispose of materials or solid residues at an authorized site.

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. Wear personal protective equipment.
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	Store in a dry place. Store locked up. Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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, such as personal protective equipment (PPE)

Hand protection: Protective gloves

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	3 (> 60 minutes)			EN ISO 374

Eye protection

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

Skin and body protection	Wear suitable protective clothing
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment. During spraying wear suitable respiratory equipment

Device	Filter type	Condition	Standard

Personal protective equipment symbol(s)

8.4. Exposure limit values for the other components

No additional information available

SECTION 9: Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	Solid
Appearance	Pasty
Molecular mass	Not determined
Colour	white.
Odour	mild.
Odour threshold	Not available
Melting point	Not applicable
Freezing point	Not available
Boiling point	100 °C
Flammability (solid, gas)	Not applicable
Explosive limits	Not applicable
Lower explosive limit (LEL)	Not applicable

Upper explosive limit (UEL)	Not applicable
Flash point	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	Not available
pH	Not available
pH solution	Not available
Viscosity, kinematic (calculated value) (40 °C)	46153.846 mm²/s
Partition coefficient n-octanol/water (Log Kow)	Not available
Vapour pressure	23 hPa
Vapour pressure at 50 °C	Not available
Density	1.3 g/cm³
Relative density	Not available
Relative vapour density at 20 °C	Not applicable
Solubility	Miscible with water.
Viscosity, dynamic	60000 mPa·s
Explosive properties	Product is not explosive
Particle size	Not available
Particle size distribution	Not available
Particle shape	Not available
Particle aspect ratio	Not available
Particle specific surface area	Not available

9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

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.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

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. Information on toxicological effects

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

Acute toxicity (inhalation)	Not classified

Tris[2-chloro-1-(chloromethyl)ethyl] phosphate (13674-87-8)	
LD50 oral rat	> 2000 mg/kg (Rat, Oral)
LD50 dermal rat	> 2000 mg/kg (Rat, Dermal)
LD50 dermal rabbit	> 23700 mg/kg (Rabbit, Dermal)
LC50 Inhalation - Rat	> 5.22 mg/l (4 h, Rat, Inhalation)

melamine (108-78-1)	
LD50 oral rat	3161 – 3828 mg/kg bodyweight (Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	> 1000 mg/kg (Rabbit, Experimental value, Dermal)
LC50 Inhalation - Rat	> 5.19 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol))

Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Not classified
Respiratory or skin sensitisation	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Suspected of causing cancer.
Reproductive toxicity	Suspected of damaging fertility or the unborn child.
STOT-single exposure	Not classified
STOT-repeated exposure	Not classified
Aspiration hazard	Not classified

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Viscosity, kinematic	46153.846 mm²/s

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	Harmful to aquatic life. Harmful 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)	Very toxic to aquatic life with long lasting effects.
Classification procedure (Hazardous to the aquatic environment, long-term (chronic))	Calculation method

Tris[2-chloro-1-(chloromethyl)ethyl] phosphate (13674-87-8)	
LC50 - Fish [1]	1.1 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Semi-static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	3.8 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Flow-through system, Fresh water, Experimental value, GLP)
ErC50 algae	4.5 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)

melamine (108-78-1)	
LC50 - Fish [1]	> 3000 mg/l (96 h, Oncorhynchus mykiss, Semi-static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	200 mg/l (EPA OPP 72-2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
EC50 96h - Algae [1]	325 mg/l (Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)

12.2. Persistence and degradability

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Persistence and degradability	No additional information available

Tris[2-chloro-1-(chloromethyl)ethyl] phosphate (13674-87-8)	
Persistence and degradability	Not readily biodegradable in water.

melamine (108-78-1)	
Persistence and degradability	Not readily biodegradable in water.
ThOD	3.04 g O_2/g substance

12.3. Bioaccumulative potential

CP 678	
Bioaccumulative potential	No additional information available

Tris[2-chloro-1-(chloromethyl)ethyl] phosphate (13674-87-8)	
BCF - Fish [1]	0.3 – 3.3 (6 week(s), Cyprinus carpio, Literature study)
BCF - Fish [2]	50 – 89 (720 h, Oryzias latipes, Static system, Literature study)
Partition coefficient n-octanol/water (Log Kow)	3.69 (Experimental value, EU Method A.8: Partition Coefficient, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

melamine (108-78-1)	
BCF - Fish [1]	0.05 – 0.11 (72 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value)
Partition coefficient n-octanol/water (Log Kow)	-1.22 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 22 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

CP 678	
Mobility in soil	No additional information available

Tris[2-chloro-1-(chloromethyl)ethyl] phosphate (13674-87-8)	
Partition coefficient n-octanol/water (Log Koc)	3.25 (log Koc, OECD 106: Adsorption/Desorption Using a Batch Equilibrium Method, Experimental value, GLP)
Ecology - soil	Low potential for mobility in soil.

melamine (108-78-1)	
Partition coefficient n-octanol/water (Log Koc)	1.51 (log Koc, SRC PCKOCWIN v2.0, QSAR)
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

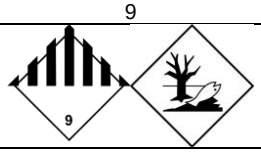
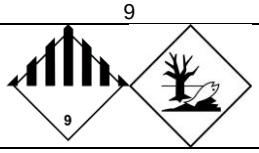
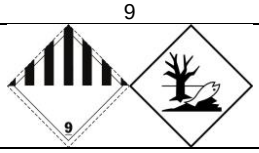
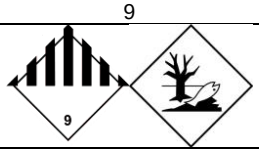
13.1. Disposal methods

Waste treatment methods: Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

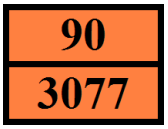
In accordance with ADR / IMDG / IATA / RID /

ADR	IMDG	IATA	RID
14.1. UN number or ID number			
UN 3077	UN 3077	UN 3077	UN 3077

ADR	IMDG	IATA	RID
14.2. UN proper shipping name			
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (tris[2-chloro-1-(chloromethyl)ethyl] phosphate)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (tris[2-chloro-1-(chloromethyl)ethyl] phosphate)	Environmentally hazardous substance, solid, n.o.s. (tris[2-chloro-1-(chloromethyl)ethyl] phosphate)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (tris[2-chloro-1-(chloromethyl)ethyl] phosphate)
Transport document description			
UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (tris[2-chloro-1-(chloromethyl)ethyl] phosphate), 9, III, (-)	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (tris[2-chloro-1-(chloromethyl)ethyl] phosphate), 9, III, MARINE POLLUTANT	UN 3077 Environmentally hazardous substance, solid, n.o.s. (tris[2-chloro-1-(chloromethyl)ethyl] phosphate), 9, III	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (tris[2-chloro-1-(chloromethyl)ethyl] phosphate), 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
No supplementary information available			

14.6. Special precautions for user

Overland transport

Classification code (ADR)	M7
Special provisions (ADR)	274, 335, 375, 601
Limited quantities (ADR)	5kg
Packing instructions (ADR)	P002, IBC08, LP02, R001
Mixed packing provisions (ADR)	MP10
Transport category (ADR)	3
Orange plates	
Tunnel restriction code (ADR)	-

Transport by sea

Special provisions (IMDG)	274, 335, 966, 967, 969
Limited quantities (IMDG)	5 kg
Packing instructions (IMDG)	LP02, P002
EmS-No. (Fire)	F-A
EmS-No. (Spillage)	S-F
Stowage category (IMDG)	A
Stowage and handling (IMDG)	SW23

Air transport

PCA packing instructions (IATA)	956
PCA max net quantity (IATA)	400kg

CAO packing instructions (IATA)	956
Special provisions (IATA)	A97, A158, A179, A197, A215

Rail transport

Special provisions (RID)	274, 335, 375, 601
Limited quantities (RID)	5kg
Packing instructions (RID)	P002, IBC08, LP02, R001

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

SECTION 16: Other information

SDS Major/Minor	None
Issue date	01/10/2021
Revision date	01/10/2021
Supersedes	07/10/2019

Section	Changed item	Change	Comments
1.1	Name	Modified	
3	Composition/information on ingredients	Modified	

Full text of H-statements:	
H303	May be harmful if swallowed
H351	Suspected of causing cancer
H361	Suspected of damaging fertility or the unborn child
H401	Toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

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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.