

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 Emirates L.L.C. Hilti AG

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P.O. Box 11051 9494 Schaan - Liechtenstein

Dubai - United Arab Emirates T +423 234 2111

T +971 800 44584 - F +971 4 885 4405

1.5. Emergency phone number

Emergency number Schweizerisches Toxikologisches Informationszentrum – 24h Service

+41 44 251 51 51 (international)

+971 4 8019694

800-Hilti (44584) (Toll free)

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 H410 Calculation method

Hazard, Category 1

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.

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GHS Label elements, including precautionary statements

Labelling according to the United Nations GHS

Hazard pictograms (GHS UN)





Signal word (GHS UN)

Hazardous ingredients

Hazard statements (GHS UN)

Precautionary statements (GHS UN)

Warning

Tris[2-chloro-1-(chloromethyl)ethyl] phosphate; melamine

H351 - Suspected of causing cancer

H361 - Suspected of damaging fertility or the unborn child H410 - Very toxic to aquatic life with long lasting effects

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

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

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.

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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.

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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

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

Eye protection

Туре	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)

Explosive limits

Not applicable

Not applicable

Not applicable

Not applicable

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Upper explosive limit (UEL) Not applicable Flash point Not applicable Auto-ignition temperature Not applicable Decomposition temperature Not available рΗ Not available Not available pH solution 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 Not available Relative density 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

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Acute toxicity (inhalation)

Not classified

Tris[2-chloro-1-(chloromethyl)ethyl] p	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
CP 678	
Viscosity, kinematic	46153.846 mm ² /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 Calculation method aquatic environment, long-term (chronic))

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)		

Persistence and degradability

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Persistence and degradability	No additional information available

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Tris[2-chloro-1-(chloromethyl)ethyl] phosphate (13674-87-8)				
Persistence and degradability	egradability 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 (1	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 (1	(3674-87-8)
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

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ADR	IMDG	IATA	RID
ABIT		MIA	M
14.2. UN proper shipping nam	ne		
ENVIRONMENTALLY	ENVIRONMENTALLY	Environmentally hazardous	ENVIRONMENTALLY
HAZARDOUS SUBSTANCE,	HAZARDOUS SUBSTANCE,	substance, solid, n.o.s. (tris[2-	HAZARDOUS SUBSTANCE,
SOLID, N.O.S. (tris[2-chloro-1-	SOLID, N.O.S. (tris[2-chloro-1-	chloro-1-(chloromethyl)ethyl]	SOLID, N.O.S. (tris[2-chloro-1-
(chloromethyl)ethyl] phosphate)	(chloromethyl)ethyl] phosphate)	phosphate)	(chloromethyl)ethyl] phosphate)
Transport document description			
UN 3077 ENVIRONMENTALLY	UN 3077 ENVIRONMENTALLY	UN 3077 Environmentally	UN 3077 ENVIRONMENTALLY
HAZARDOUS SUBSTANCE,	HAZARDOUS SUBSTANCE,	hazardous substance, solid,	HAZARDOUS SUBSTANCE,
SOLID, N.O.S. (tris[2-chloro-1-	SOLID, N.O.S. (tris[2-chloro-1-	n.o.s. (tris[2-chloro-1-	SOLID, N.O.S. (tris[2-chloro-1-
(chloromethyl)ethyl] phosphate),	(chloromethyl)ethyl] phosphate),	(chloromethyl)ethyl] phosphate),	(chloromethyl)ethyl] phosphate),
9, III, (-)	9, III, MARINE POLLUTANT	9, III	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:	Dangerous for the environment:	Dangerous for the environment:	Dangerous for the environment:
Yes	Yes	Yes	Yes
	Marine pollutant: Yes		
No supplementary information avail	able		

14.6. Special precautions for user

Overland transport

Classification code (ADR) M7

Special provisions (ADR) 274, 335, 375, 601

Limited quantities (ADR)

Packing instructions (ADR) P002, IBC08, LP02, R001

Mixed packing provisions (ADR) MP10
Transport category (ADR) 3

Transport category (ADR)
Orange plates

90 3077

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-AEmS-No. (Spillage)S-FStowage category (IMDG)AStowage and handling (IMDG)SW23

Air transport

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

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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

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 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	

SDS_UN_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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