

CF 101 / CF Z 200

Safety information for 2-Component-products

Issue date: 25/04/2025 Revision date: 25/04/2025 Supersedes: 30/09/2024 Version: 7.0

SECTION 1: Kit identification

1.1 Product identifier

Product name CF 101 / CF Z 200
Product code BU Fire Protection

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

Hilti (Switzerland) Ltd. Kalchbühlstrasse 22 8038 Zurich - Switzerland T +41 844 84 84 85 - F +41 844 84 84 86 info@hilti.ch

SECTION 2: General information

Switzerland

Swiss CPID No KIT: 254762-75; CF 101, A:572422-23, CF 101 B: 572423-20

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

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute Tox. 4 (Oral) H302 Acute Tox. 4 (Inhalation) H332 Skin Irrit. 2 H315 Eye Irrit. 2 H319 H334 Resp. Sens. 1 Skin Sens. 1 H317 H351 Carc. 2 STOT SE 3 H335 STOT RE 2 H373

Full text of H- and EUH-statements: see section 16

Label elements

Signal word (CLP)

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)





aor

Danger

25/04/2025 CH - en 1/29



CF 101 / CF Z 200

Kit Safety Information Sheet (SIS)

Hazardous ingredients tris(2-chloro-1-methylethyl) phosphate, 2,2',6,6'-Tetrabromo-4,4'-

isopropylidenediphenol, oligomeric reaction products with Propylene oxide and n-butyl glycidyl

ether, 4,4'-diphenylmethanediisocyanate, isomeres and homologues

Hazard statements (CLP) H302+H332 - Harmful if swallowed or if inhaled

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H319 - Causes serious eye irritation.

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 - May cause respiratory irritation. H351 - Suspected of causing cancer.

H373 - May cause damage to organs through prolonged or repeated exposure.

Precautionary statements (CLP) P260 - Do not breathe vapours.

P280 - Wear Protective clothing, eye protection, protective clothing. P284 - In case of inadequate ventilation wear respiratory protection. 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.

P342+P311 - If experiencing respiratory symptoms. Call a POISON CENTER or

doctor/physician.

Extra phrases As from 24 August 2023 adequate training is required before industrial or professional use

Additional information



Name	General description	Quantity	Unit	Classification according to Regulation (EC) No. 1272/2008 [CLP]
CF 101/ CF Z 200, B		1	pcs (pieces)	Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Carc. 2, H351 STOT SE 3, H335 STOT RE 2, H373
CF 101/ CF Z 200, A		1	pcs (pieces)	Acute Tox. 4 (Oral), H302 Carc. 2, H351

SECTION 4: General information

No data available

SECTION 5: Safe handling advice

Environmental precautions Avoid release to the environment

Prevent entry to sewers and public waters

Notify authorities if liquid enters sewers or public waters

Storage conditions Store locked up.

Store in a well-ventilated place. Keep container tightly closed.

Keep cool.

Keep only in the original container in a cool, well ventilated place away from :

Precautions for safe handling Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Wear personal protective equipment

Do not breathe vapours.

Use only outdoors or in a well-ventilated area.

Avoid contact with skin and eyes

Wash hands and other exposed areas with mild soap and water before eating, drinking or

smoking and when leaving work

Provide good ventilation in process area to prevent formation of vapour

25/04/2025 CH - en 2/29



CF 101 / CF Z 200

Kit Safety Information Sheet (SIS)

Avoid breathing dust/fume/gas/mist/vapours/spray.

Methods for cleaning up Store away from other materials.

Incompatible materials Sources of ignition Direct sunlight

Incompatible products Strong bases

Strong acids

SECTION 6: First aid measures

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.

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

First-aid measures after inhalation If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for

breathing.

Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER/doctor

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 contaminated clothing before reuse.

Symptoms/effects after eye contact Causes serious eye irritation.

Symptoms/effects after inhalation May cause respiratory irritation.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Symptoms/effects after skin contact May cause an allergic skin reaction.

Causes skin irritation.

SECTION 7: Fire fighting measures

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

Hazardous decomposition products in case of

fire

Toxic fumes may be released

SECTION 8: Other information

No data available

25/04/2025 CH - en 3/29



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Issue date: 4/25/2025 Revision date: 4/25/2025 Supersedes version of: 9/30/2024 Version: 7.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form Mixture

Trade name CF 101, B / CF Z 200, B

Swiss CPID No 572423-20
Product code BU Fire Protection

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Main use category Professional use

Industrial/Professional use spec For professional use only Use of the substance/mixture PU installation foams

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier Department issuing data specification sheet

Hilti (Switzerland) Ltd.

 Kalchbühlstrasse 22
 Feldkircherstraße 100

 CH 8038 Zurich
 P.O. Box 333

 Switzerland
 HAG 9494 Schaan

 T +41 844 84 85, F +41 844 84 86
 Liechtenstein

info@hilti.ch T +423 234 2111, F +423 234 2965

www.hilti.com

1.4. Emergency telephone number

Emergency number Emergency CONTACT (24-Hour-Number):

GBK GmbH Global Regulatory Compliance

+49 (0)6132-84463

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (inhalation:dust,mist) Category 4

Skin corrosion/irritation, Category 2

H315

Serious eye damage/eye irritation, Category 2

H319

Skin sensitisation, Category 1

Carcinogenicity, Category 2

H351

Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

Specific target organ toxicity – Repeated exposure, Category 2 H373

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure. May cause respiratory irritation. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS07



GHS08

Signal word (CLP)

Hazard statements (CLP)

Contains

Precautionary statements (CLP)

Warning

4,4'-diphenylmethanediisocyanate, isomeres and homologues

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction. H319 - Causes serious eye irritation.

H332 - Harmful if inhaled.

H335 - May cause respiratory irritation. H351 - Suspected of causing cancer.

H373 - May cause damage to organs through prolonged or repeated exposure.

P260 - Do not breathe vapours.

P280 - Wear protective gloves, protective clothing, eye protection. P284 - In case of inadequate ventilation wear respiratory protection. 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.

P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTER or

doctor/physician.

As from 24 August 2023 adequate training is required before industrial or professional use. Extra phrases

2.3. Other hazards

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

Component	
4,4'-diphenylmethanediisocyanate, isomeres and homologues (9016-87-9)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

Component	
	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

3.2. Mixtures

Name	Product identifier	Conc.	Classification according to Regulation (EC) No. 1272/2008 [CLP]
4,4'-diphenylmethanediisocyanate, isomeres and homologues	CAS-No.: 9016-87-9 EC-No.: 618-498-9	100	Acute Tox. 4 (Inhalation), H332 (ATE=1.5 mg/l/4h) Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 Carc. 2, H351 STOT SE 3, H335 STOT RE 2, H373

Specific concentration limits:				
Name	Product identifier	Specific concentration limits		
4,4'-diphenylmethanediisocyanate, isomeres and homologues	CAS-No.: 9016-87-9 EC-No.: 618-498-9	(0.1 ≤ C < 100) Resp. Sens. 1, H334 (5 ≤ C < 100) Skin Irrit. 2, H315 (5 ≤ C < 100) Eye Irrit. 2, H319 (5 ≤ C < 100) STOT SE 3, H335		

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measure	4.1.)escri	ption	of	first	aid	measure
---------------------------------------	------	--------	-------	----	-------	-----	---------

First-aid measures general IF exposed or concerned: Get medical advice/attention. 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. Call a poison center or a

doctor if you feel unwell.

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 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.

First-aid measures after ingestion Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation May cause respiratory irritation. May cause allergy or asthma symptoms or breathing

difficulties if inhaled.

Symptoms/effects after skin contact Irritation. May cause an allergic skin reaction.

Symptoms/effects after eye contact Eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire

Toxic fumes may be released.



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

5.3. Advice for firefighters

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. Do not breathe vapours. Avoid contact with skin and eyes.

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. Prevent entry to sewers and public waters.

6.3. Methods and material 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.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling Obtain special instructions before use. Do not handle until all safety precautions have been

read and understood. Wear personal protective equipment. Do not breathe vapours. Use

only outdoors or in a well-ventilated area. Avoid contact with skin and eyes.

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.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions Keep cool. Protect from sunlight. Store locked up. Store in a well-ventilated place. Keep

container tightly closed. Keep cool.

Storage temperature 5-25 °C

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. National occupational exposure and biological limit values

4,4'-diphenylmethanediisocyanate, isomeres and homologues (9016-87-9)		
Switzerland - Occupational Exposure Limits		
Local name	4,4'-Diisocyanate de diphénylméthane / Diphenylmethan-4,4'-diisocyanat	
Notation	R, SS _C , B / H, SS _C , B	



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

4,4'-diphenylmethanediisocyanate, isomeres and homologues (9016-87-9)

Regulatory reference www.suva.ch, 01.01.2023

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:

Protective clothing. Gloves. Protective goggles. Avoid all unnecessary exposure.

Personal protective equipment symbol(s):







8.2.2.1. Eye and face protection

Eye protection:

Chemical goggles or safety glasses

Eye protection			
Туре	Field of application	Characteristics	Standard
Safety glasses			EN 166, EN 171

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Wear suitable gloves tested to EN374. Suitable for short-term work or as a splash guard:

Nitrile rubber gloves (> 0.1 mm). In case of permanent product contact:

Hand protection					
Туре	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	>0,35		
Disposable gloves	Butyl rubber	6 (> 480 minutes)	>0,35		



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

8.2.2.3. Respiratory protection

Respiratory protection:

Not necessary with sufficient ventilation. Ensure good ventilation of the work station. Open windows during application to ensure natural ventilation. If the occupational exposure limit is exceeded: Wear appropriate mask. (e.g. gas filter type A1-P2 according to EN 14387)

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

Other information:

Do not eat, drink or smoke during use.

As from 24 August 2023 adequate training is required before industrial or professional use, www.feica.eu/PUinfo

Liquid



Physical state

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Colour amber. Odour characteristic. Odour threshold Not available Melting point Not applicable Freezing point Not available Boiling point Not available Not applicable Flammability Lower explosion limit Not available Upper explosion limit Not available Flash point > 93 °C Auto-ignition temperature Not available Not available Decomposition temperature Not available рΗ Viscosity, kinematic Not available Solubility Not available Not available Partition coefficient n-octanol/water (Log Kow) Not available Vapour pressure Vapour pressure at 50°C Not available Density Not available Relative density 1.1 - 1.25Relative vapour density at 20°C Not available Particle characteristics Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

9.2.2. Other safety characteristics

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

Water, humidity. Direct sunlight. Heat. Open flame.

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 hazard classes as defined in Regulation (EC) No 1272/2008

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

Acute toxicity (inhalation) Inhalation:dust,mist: Harmful if inhaled.

CF	101	R	/ CF	7 200) R

IARC group

ATE CLP (dust,mist) 1.5 mg/l/4h

4,4'-diphenylmethanediisocyanate, isomeres and homologues (9016-87-9)

	5 ()
LD50 oral rat	> 10000 mg/kg (Rat, Literature study, Oral)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit, Literature study, Dermal)
LD50 dermal	9400 mg/kg
LC50 Inhalation - Rat	0.49 mg/l

Skin corrosion/irritationCauses skin irritation.Serious eye damage/irritationCauses serious eye irritation.Respiratory or skin sensitisationMay cause an allergic skin reaction.

Germ cell mutagenicity Not classified

Carcinogenicity Suspected of causing cancer.

4,4'-diphenylmethanediisocyanate, isomeres and homologues (9016-87-9)

Reproductive toxicity Not classified

STOT-single exposure May cause respiratory irritation.

4,4'-diphenylmethanediisocyanate, isomeres and homologues (9016-87-9)

STOT-single exposure May cause respiratory irritation.

STOT-repeated exposure May cause damage to organs through prolonged or repeated exposure.

3 - Not classifiable



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

4,4'-diphenylmethanediisocyanate, isomeres and homologues (9016-87-9)		
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.	
Aspiration hazard	Not classified	

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general The product is not considered harmful to aquatic organisms nor to cause long-term adverse

effects in the environment.

Hazardous to the aquatic environment, short-term

Not classified

Hazardous to the aquatic environment, long-term

(chronic)

Not classified

4,4'-diphenylmethanediisocyanate, isomeres and homologues (9016-87-9)	
LC50 - Other aquatic organisms [1]	> 1000 mg/l (96 h, Literature study)

12.2. Persistence and degradability

4,4'-diphenylmethanediisocyanate, isomeres and homologues (9016-87-9)	
Persistence and degradability	Not readily biodegradable in water.

12.3. Bioaccumulative potential

4,4'-diphenylmethanediisocyanate, isomeres and homologues (9016-87-9)		
BCF - Fish [1] 268.1 l/kg (BCFBAF v3.01, Estimated value, Fresh weight)		
Partition coefficient n-octanol/water (Log Pow)	10.46 (Calculated, KOWWIN)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).	

12.4. Mobility in soil

4,4'-diphenylmethanediisocyanate, isomeres and homologues (9016-87-9)		
Surface tension No data available in the literature		
Organic Carbon Normalized Adsorption Coefficient (Log Koc) 9.078 – 10.597 (log Koc, SRC PCKOCWIN v2.0, Calculated value)		
Ecology - soil	Adsorbs into the soil.	

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods European List of Waste (LoW, EC 2000/532) HP Code Dispose of contents/container in accordance with licensed collector's sorting instructions. 08 05 01* - waste isocyanates

HP5 - "Specific Target Organ Toxicity (STOT)/Aspiration Toxicity:" waste which can cause specific target organ toxicity either from a single or repeated exposure, or which cause acute toxic effects following aspiration.

HP6 - "Acute Toxicity:" waste which can cause acute toxic effects following oral or dermal administration, or inhalation exposure.

HP7 - "Carcinogenic:" waste which induces cancer or increases its incidence

HP4 - "Irritant – skin irritation and eye damage:" waste which on application can cause skin irritation or damage to the eye.

HP13 - "Sensitising:" waste which contains one or more substances known to cause sensitising effects to the skin or the respiratory organs.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID /

ADR	IMDG	IATA	RID
14.1. UN number or ID nur	nber		'
Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping ı	name		
Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard cla	ss(es)		
Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group			·
Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazar	ds		
Not applicable	Not applicable	Not applicable	Not applicable

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

Rail transport

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Not applicable



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	
74.	CF 101, B / CF Z 200, B	

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

Switzerland

Swiss National Regulations

Artikel 13 Mutterschutzverordnung (SR 822.111.52):

Schwangere Frauen und stillende Mütter dürfen bei ihrer Arbeit nur dann mit dieser Zubereitung in Kontakt kommen oder dieser ausgesetzt werden, wenn auf Grund einer Risikobeurteilung durch eine Fachperson feststeht, dass im Kontext mit den Tätigkeiten und den getroffenen Schutzmassnahmen die Exposition zu keinen Schädigungen für Mutter und Kind führt

Young people in basic vocational training may only work with this product if this is provided for in the respective educational ordinance to achieve their training goal, the requirements of the training plan are met and the applicable age restrictions are observed. Young people who do not complete basic vocational training must not work with this product. Young people are employees of both sexes up to the age of 18 (Ordinance on the Protection of

Young People at Work, SR 822.115).

Storage class (LK) LK 10/12 - Liquids Swiss CPID No 572423-20

15.2. Chemical safety assessment

No chemical safety assessment has been carried out



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

SECTION 16: Other information

Indication of changes			
Section Changed item Change Comments			
			general update

Abbreviations and acronyms:			
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways		
ThOD	Theoretical oxygen demand (ThOD)		
TLM	Median Tolerance Limit		
TRGS	Technical Rules for Hazardous Substances		
VOC	Volatile Organic Compounds		
vPvB	Very Persistent and Very Bioaccumulative		
WGK	Water Hazard Class		
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road		
ATE	Acute Toxicity Estimate		
BCF	Bioconcentration factor		
BLV	Biological limit value		
BOD	Biochemical oxygen demand (BOD)		
CAS-No.	Chemical Abstract Service number		
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008		
COD	Chemical oxygen demand (COD)		
DMEL	Derived Minimal Effect level		
DNEL	Derived-No Effect Level		
EC-No.	European Community number		
EC50	Median effective concentration		
ED	Endocrine disrupting properties		
EN	European Standard		
IARC	International Agency for Research on Cancer		
IATA	International Air Transport Association		
IMDG	International Maritime Dangerous Goods		
IOELV	Indicative Occupational Exposure Limit Value		
LC50	Median lethal concentration		
LD50	Median lethal dose		
LOAEL	Lowest Observed Adverse Effect Level		
NOAEC	No-Observed Adverse Effect Concentration		
NOAEL	No-Observed Adverse Effect Level		



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Abbreviations and acronyms:			
NOEC	No-Observed Effect Concentration		
N.O.S.	Not Otherwise Specified		
OECD	Organisation for Economic Co-operation and Development		
OEL	Occupational Exposure Limit		
PBT	Persistent Bioaccumulative Toxic		
PNEC	Predicted No-Effect Concentration		
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006		
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail		
SDS	Safety Data Sheet		
STP	Sewage treatment plant		

Full text of H- and EUH-statements:			
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4		
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4		
Carc. 2	Carcinogenicity, Category 2		
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2		
H315	Causes skin irritation.		
H317	May cause an allergic skin reaction.		
H319	Causes serious eye irritation.		
H332	Harmful if inhaled.		
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.		
H335	May cause respiratory irritation.		
H351	Suspected of causing cancer.		
H373	May cause damage to organs through prolonged or repeated exposure.		
Resp. Sens. 1	Respiratory sensitisation, Category 1		
Skin Irrit. 2	Skin corrosion/irritation, Category 2		
Skin Sens. 1	Skin sensitisation, Category 1		
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2		
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation		

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:			
Acute Tox. 4 (Inhalation:dust,mist)	H332	Calculation method	
Skin Irrit. 2	H315	Calculation method	
Eye Irrit. 2	H319	Calculation method	



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Skin Sens. 1	Sens. 1 H317 Calculation method	
Carc. 2	H351	Calculation method
STOT SE 3	H335	Calculation method
STOT RE 2	H373	Calculation method

SDS_EU_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.



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Issue date: 4/25/2025 Revision date: 4/25/2025 Supersedes version of: 8/6/2024 Version: 6.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form Mixture

Trade name CF 101, A / CF Z 200, A

Swiss CPID No 572422-23
Product code BU Fire Protection

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Main use category Professional use Industrial/Professional use spec For professional use only Use of the substance/mixture PU installation foams

1.2.2. Uses advised against

Supplier

No additional information available

1.3. Details of the supplier of the safety data sheet

1.5. Details of the supplier of the safety data sheet

Hilti (Switzerland) Ltd. Hilti AG
Kalchbühlstrasse 22 Feldkircherstraße 100
CH 8038 Zurich P.O. Box 333
Switzerland HAG 9494 Schaan

T +41 844 84 85, F +41 844 84 86 Liechtenstein

info@hilti.ch T +423 234 2111, F +423 234 2965

www.hilti.com

Department issuing data specification sheet

1.4. Emergency telephone number

Emergency number Emergency CONTACT (24-Hour-Number):

GBK GmbH Global Regulatory Compliance

+49 (0)6132-84463

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (oral), Category 4 H302 Carcinogenicity, Category 2 H351

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS07

GHS08

Signal word (CLP) Warning



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Contains 2,2',6,6'-Tetrabromo-4,4'-isopropylidenediphenol, oligomeric reaction products with

Propylene oxide and n-butyl glycidyl ether; Reaction products of phosphoryl trichloride and

2-methyloxirane

Hazard statements (CLP) H302 - Harmful if swallowed.

H351 - Suspected of causing cancer.

Precautionary statements (CLP) P280 - Wear protective gloves, protective clothing, eye protection.

P302+P352 - IF ON SKIN: Wash with plenty of soap and water. P308+P313 - IF exposed or concerned: Get medical advice/attention.

2.3. Other hazards

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

Component	Component		
bis(2-dimethylaminoethyl)(methyl)amine (3030-47-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII		
2,2',6,6'-Tetrabromo-4,4'-isopropylidenediphenol, oligomeric reaction products with Propylene oxide and n-butyl glycidyl ether (1179964-22-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII		
2-ethylhexanoic acid (149-57-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII		
Reaction products of phosphoryl trichloride and 2-methyloxirane (1244733-77-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII		

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

Component	Component			
2,2',6,6'-Tetrabromo-4,4'-isopropylidenediphenol, oligomeric reaction products with Propylene oxide and n-butyl glycidyl ether (1179964-22-7)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605			
Reaction products of phosphoryl trichloride and 2-methyloxirane (1244733-77-4)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605			
bis(2-dimethylaminoethyl)(methyl)amine (3030-47-5)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605			
2-ethylhexanoic acid (149-57-5)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605			

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

3.2. Mixtures

Name	Product identifier	Conc.	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2,2',6,6'-Tetrabromo-4,4'-isopropylidenediphenol, oligomeric reaction products with Propylene oxide and n-butyl glycidyl ether	CAS-No.: 1179964-22-7 EC-No.: 926-564-6 REACH-no: 01-2119971810- 36	10 – 25	Acute Tox. 4 (Oral), H302 (ATE=732 mg/kg bodyweight)
Reaction products of phosphoryl trichloride and 2-methyloxirane	CAS-No.: 1244733-77-4 EC-No.: 807-935-0 REACH-no: 01-2119486772- 26	10 – 25	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Carc. 2, H351 Aquatic Chronic 3, H412
bis(2-dimethylaminoethyl)(methyl)amine	CAS-No.: 3030-47-5 EC-No.: 221-201-1 EC Index-No.: 612-109-00-6 REACH-no: 01-2119979537-	0.1 – 1	Acute Tox. 4 (Oral), H302 (ATE=1330 mg/kg bodyweight) Acute Tox. 3 (Dermal), H311 (ATE=200 mg/kg bodyweight) Skin Corr. 1A, H314 Aquatic Chronic 3, H412
2-ethylhexanoic acid	CAS-No.: 149-57-5 EC-No.: 205-743-6 EC Index-No.: 607-230-00-6 REACH-no: 01-2119488942- 23	0.01 – 1	Repr. 2, H361d

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measure

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. 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. Remove affected clothing and wash all exposed skin

area with mild soap and water, followed by warm water rinse.

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. Obtain

medical attention if pain, blinking or redness persists.

First-aid measures after ingestion Call a poison center or a doctor if you feel unwell. Rinse mouth. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after skin contact Irritation. May cause an allergic skin reaction.

Symptoms/effects after eye contact Eye irritation.

Symptoms/effects after ingestion Swallowing a small quantity of this material will result in serious health hazard.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Unsuitable extinguishing media Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire

Toxic fumes may be released.

5.3. Advice for firefighters

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/fume/gas/mist/vapours/spray. 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 material for containment and cleaning up

Methods for cleaning up Mechanically recover the product. Soak up spills with inert solids, such as clay or

diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

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. Avoid contact with skin and eyes. Wear

personal protective equipment. Avoid breathing dust/fume/gas/mist/vapours/spray. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of

vapour.

Hygiene measures 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 Keep cool. Protect from sunlight. 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.

4/25/2025 (Version: 6.0) EN (English) 20/29



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Storage temperature

5 - 25 °C

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:

Avoid all unnecessary exposure. Gloves.

Personal protective equipment symbol(s):







8.2.2.1. Eye and face protection

Eye protection:

Chemical goggles or safety glasses

Eye protection			
Туре	Field of application	Characteristics	Standard
Safety glasses			EN 166, EN 171

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Wear suitable gloves tested to EN374. Suitable for short-term work or as a splash guard:

Nitrile rubber gloves (> 0.1 mm). In case of permanent product contact:



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Hand protection					
Туре	Material	Permeation	Thickness (mm)	Penetration	Standard
	Nitrile rubber (NBR)	6 (> 480 minutes)	>0,35		
	Butyl rubber	6 (> 480 minutes)	>0,35		

8.2.2.3. Respiratory protection

Respiratory protection:

Not necessary with sufficient ventilation. Ensure good ventilation of the work station. Open windows during application to ensure natural ventilation. If the occupational exposure limit is exceeded: Wear appropriate mask. (e.g. gas filter type A1-P2 according to EN 14387)

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

Other information:

Do not eat, drink or smoke during use. No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Liquid
Colour light yellow.
Odour characteristic.
Odour threshold Not available
Melting point Not applicable
Freezing point Not available
Boiling point Not available

Flammability Not applicable, Non flammable.

Lower explosion limit Not available Upper explosion limit Not available > 93 °C Flash point Not available Auto-ignition temperature Decomposition temperature Not available Not available рΗ Viscosity, kinematic Not available Solubility Not available Partition coefficient n-octanol/water (Log Kow) Not available Vapour pressure Not available Vapour pressure at 50°C Not available Not available Density Relative density 1.1 - 1.25Relative vapour density at 20°C Not available Particle characteristics Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

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.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Not established.

10.4. Conditions to avoid

Water, humidity. Direct sunlight. Heat. Open flame. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

CF 101, A / CF Z 200, A

LD50 oral rat

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 hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) Harmful if swallowed.

Acute toxicity (dermal) Not classified

Acute toxicity (inhalation) Not classified

ATE CLP (oral)	1237.309 mg/kg bodyweight
bis(2-dimethylaminoethyl)(methyl)amine (3030-47-5)	
LD50 oral rat	1330 mg/kg
LD50 dermal rabbit	200 – 1000 mg/kg
LC50 Inhalation - Rat (Vapours)	2.05 mg/l/4h

2,2',6,6'-Tetrabromo-4,4'-isopropylidenediphenol, oligomeric reaction products with Propylene oxide and n-butyl glycidyl ether (1179964-22-7)

LD50 dermal rat	> 2000 mg/kg	
2-ethylhexanoic acid (149-57-5)		
LD50 oral rat 3640 mg/kg		
LD50 oral 2043 mg/kg		
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))	
LD50 dermal rabbit	> 2000 mg/kg	

Skin corrosion/irritation Not classified

Additional information Based on available data, the classification criteria are not met

732 mg/kg

Serious eye damage/irritation Not classified

Additional information Based on available data, the classification criteria are not met

Respiratory or skin sensitisation Not classifie

Additional information Based on available data, the classification criteria are not met



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Germ cell mutagenicity Not classified

Additional information Based on available data, the classification criteria are not met

Carcinogenicity Suspected of causing cancer.

Additional information Based on available data, the classification criteria are not met

Reproductive toxicity Not classified

Additional information Based on available data, the classification criteria are not met

STOT-single exposure Not classified

Additional information Based on available data, the classification criteria are not met

STOT-repeated exposure Not classified

Additional information Based on available data, the classification criteria are not met

Aspiration hazard Not classified

Additional information Based on available data, the classification criteria are not met

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

11.2.2. Other information

Potential adverse human health effects and

symptoms

Harmful if swallowed

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general The product is not considered harmful to aquatic organisms nor to cause long-term adverse

effects in the environment. Not classified

Hazardous to the aquatic environment, short-term

(acute)

Hazardous to the aquatic environment, long-term

(chronic)

Not classified

bis(2-dimethylaminoethyl)(methyl)amine (3030-47-5)		
LC50 - Fish [1]	2	
LC50 Fish [2]	1	

, , , , , , , , , , , , , , , , , , , ,	
LC50 - Fish [1]	220 mg/l Leuciscus idus (Goldorfe), (DIN 38412 Teil 15)
LC50 - Fish [2]	157 mg/l Oncorhynchus mykiss (OECD 203)
EC50 - Crustacea [1]	54.9 mg/l Daphnia magna
EC50 72h - Algae [1]	78.3 mg/l Desmodesmus subspicatus

EC50 7211 - Algae [1]	76.5 mg/r Desmodesmus subspicatus
2-ethylhexanoic acid (149-57-5)	
LC50 - Fish [1]	> 100 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oryzias latipes, Semi-static system, Fresh water, Experimental value, GLP)
LC50 - Fish [2]	> 250 mg/l Leuciscus idus (golden orfe)
EC50 - Crustacea [1]	85.4 mg/l (EPA 600/4-85/013: Method for measuring the acute toxicity of effluents to freshwater and marine organisms, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
EC50 72h - Algae [1]	61 mg/l
ErC50 algae	485 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)

12.2. Persistence and degradability

CF 101, A / CF Z 200, A	
Persistence and degradability	Not established.



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

2,2',6,6'-Tetrabromo-4,4'-isopropylidenediphenol, oligomeric reaction products with Propylene oxide and n-butyl glycidyl ether (1179964-22-7)		
Persistence and degradability biologically not degradable.		
2-ethylhexanoic acid (149-57-5)		
Persistence and degradability Readily biodegradable in the soil. Readily biodegradable in water.		
Biochemical oxygen demand (BOD) 1.2 g O ₂ /g substance		
Chemical oxygen demand (COD)	2.113 – 2.24 g O ₂ /g substance	

12.3. Bioaccumulative potential

CF 101, A / CF Z 200, A		
Bioaccumulative potential	Not established.	
2,2',6,6'-Tetrabromo-4,4'-isopropylidenediphenol, oligomeric reaction products with Propylene oxide and n-butyl glycidyl ether (1179964-22-7)		
Partition coefficient n-octanol/water (Log Pow)	4.8	
2-ethylhexanoic acid (149-57-5)		
Partition coefficient n-octanol/water (Log Pow)	2.7 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).	

12.4. Mobility in soil

2-ethylhexanoic acid (149-57-5)	
Surface tension	No data available in the literature
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.4 – 1.6 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Highly mobile in soil.

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Additional information

Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods

Product/Packaging disposal recommendations

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

Ecological information Avoid release to the environment.

European List of Waste (LoW, EC 2000/532)

08 04 09* - waste adhesives and sealants containing organic solvents or other dangerous

substances



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

HP Code

HP6 - "Acute Toxicity:" waste which can cause acute toxic effects following oral or dermal administration, or inhalation exposure.

HP7 - "Carcinogenic:" waste which induces cancer or increases its incidence

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID /

ADR	IMDG	IATA	RID
14.1. UN number or ID num	ber		
Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping n	ame		
Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard clas	ss(es)		
Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazard	ls		
Not applicable	Not applicable	Not applicable	Not applicable
No supplementary informatio	n available		1

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

Rail transport

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

Switzerland

Storage class (LK) LK 10/12 - Liquids Swiss CPID No 572422-23

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes			
Section	Changed item	Change	Comments
		Added	TCPP: Carc. 2, H351

Abbreviations and acronyms:		
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways	
ThOD	Theoretical oxygen demand (ThOD)	
TLM	Median Tolerance Limit	
TRGS	Technical Rules for Hazardous Substances	
VOC	Volatile Organic Compounds	
vPvB	Very Persistent and Very Bioaccumulative	
WGK	Water Hazard Class	
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road	
ATE	Acute Toxicity Estimate	
BCF	Bioconcentration factor	
BLV	Biological limit value	



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Abbreviations and acronyms:		
BOD	Biochemical oxygen demand (BOD)	
CAS-No.	Chemical Abstract Service number	
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008	
COD	Chemical oxygen demand (COD)	
DMEL	Derived Minimal Effect level	
DNEL	Derived-No Effect Level	
EC-No.	European Community number	
EC50	Median effective concentration	
ED	Endocrine disrupting properties	
EN	European Standard	
IARC	International Agency for Research on Cancer	
IATA	International Air Transport Association	
IMDG	International Maritime Dangerous Goods	
IOELV	Indicative Occupational Exposure Limit Value	
LC50	Median lethal concentration	
LD50	Median lethal dose	
LOAEL	Lowest Observed Adverse Effect Level	
NOAEC	No-Observed Adverse Effect Concentration	
NOAEL	No-Observed Adverse Effect Level	
NOEC	No-Observed Effect Concentration	
N.O.S.	Not Otherwise Specified	
OECD	Organisation for Economic Co-operation and Development	
OEL	Occupational Exposure Limit	
РВТ	Persistent Bioaccumulative Toxic	
PNEC	Predicted No-Effect Concentration	
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006	
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail	
SDS	Safety Data Sheet	
STP	Sewage treatment plant	

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.



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Full text of H- and EUH-statements:		
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4	
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3	
Carc. 2	Carcinogenicity, Category 2	
H302	Harmful if swallowed.	
H311	Toxic in contact with skin.	
H314	Causes severe skin burns and eye damage.	
H351	Suspected of causing cancer.	
H361d	Suspected of damaging the unborn child.	
H412	Harmful to aquatic life with long lasting effects.	
Repr. 2	Reproductive toxicity, Category 2	
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A	

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Acute Tox. 4 (Oral)	H302	Calculation method
Carc. 2	H351	Calculation method

SDS_EU_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.