

CF T 200

Safety information for 2-Component-products

Issue date: 15/11/2021

Revision date: 15/11/2021

Supersedes: 19/02/2019

Version: 6.0

SECTION 1: Kit identification

1.1 Product identifier

Product name CF T 200
Product code BU Fire Protection

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

Hilti Deutschland AG
Hiltistr. 2
86916 Kaufering - Deutschland
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de.kundenservice@hilti.com

SECTION 2: General information

Germany

Regulatory reference WGK 1, Slightly hazardous to water (Classification according to AwSV, Annex 1)
Storage class (LGK, TRGS 510) LGK 10 - Combustible liquids

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
Resp. Sens. 1	H334
Skin Sens. 1	H317
Carc. 2	H351
STOT SE 3	H335
STOT RE 2	H373

Full text of H-statements: see section 16

Label elements

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

Hazard pictograms (CLP)



GHS07



GHS08

CF T 200

Kit SIS (Safety Information Sheet)

Signal word (CLP)	Danger
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, 1-methylimidazole, Ethylenediamine, ethoxylated and propoxylated, 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)	P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P260 - Do not breathe dust/fume/gas/mist/vapours/spray. P264 - Wash hands, forearms and face thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P271 - Use only outdoors or in a well-ventilated area.
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 T 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 T 200, A		1	pcs (pieces)	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317

SECTION 4: General information

No data available

SECTION 5: Safe handling advice

Environmental precautions	Avoid release to the environment
Storage conditions	Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.
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

SECTION 6: First aid measures

CF T 200

Kit SIS (Safety Information Sheet)

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
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 general	IF exposed or concerned: Get medical advice/attention. Call a poison center or a doctor if you feel unwell
Symptoms/effects after eye contact	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	Irritation May cause an allergic skin reaction.
Other medical advice or treatment	Treat symptomatically

SECTION 7: Fire fighting measures

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

SECTION 8: Other information

No data available

CF T 200, A

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878
Issue date: 15.11.2021 Revision date: 15.11.2021 Supersedes version of: 19.02.2019

Version: 5.0

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

1.1. Product identifier

Product form	Mixture
Trade name	CF T 200, A
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

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 Deutschland AG	Hilti AG
Hiltistr. 2	Feldkircherstraße 100
86916 Kaufering - Deutschland	9494 Schaan - Liechtenstein
T +49 8191 90-0 - F +49 8191 90-1122	T +423 234 2111
de.kundenservice@hilti.com	chemicals.hse@hilti.com

1.4. Emergency telephone number

Emergency number	Schweizerisches Toxikologisches Informationszentrum – 24h Service +41 44 251 51 51 (international)
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SECTION 2 Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP] Mixtures/Substances: SDS EU > 2015: According to Regulation (EU) 2015/830, 2020/878 (REACH Annex II)

Acute toxicity (oral), Category 4	H302
Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 2	H319
Skin sensitisation, Category 1	H317
Full text of H-statements: see section 16	

Adverse physicochemical, human health and environmental effects

Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation.

2.2. Label elements

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

Hazard pictograms (CLP)



GHS07

Signal word (CLP)

Warning

Contains

tris(2-chloro-1-methylethyl) phosphite; 2,2',6,6'-Tetrabromo-4,4'-isopropylidenediphenol, oligomeric reaction products with Propylene oxide and n-butyl glycidyl ether; 1-methylimidazole; Ethylenediamine, ethoxylated and propoxylated

Hazard statements (CLP)

H302 - Harmful if swallowed.
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.

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

Precautionary statements (CLP)

H319 - Causes serious eye irritation.
 P280 - Wear protective gloves, eye protection, protective clothing.
 P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P308+P313 - IF exposed or concerned: Get medical advice/attention.
 6NPS-GADD-8GQJ-U2VM

UFI

2.3. Other hazards

Component	
tris(2-chloro-1-methylethyl) phosphate (13674-84-5)	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	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
Ethylenediamine, ethoxylated and propoxylated (26316-40-5)	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
1-methylimidazole (616-47-7)	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

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 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

Component	
tris(2-chloro-1-methylethyl) phosphate(13674-84-5)	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
2,2',6,6'-Tetrabromo-4,4'-isopropylidenediphenol, oligomeric reaction products with Propylene oxide and n-butyl glycidyl ether	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
Ethylenediamine, ethoxylated and propoxylated(26316-40-5)	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
1-methylimidazole(616-47-7)	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

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

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

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
tris(2-chloro-1-methylethyl) phosphate	CAS-No. 13674-84-5 EC-No. 237-158-7 REACH-no 01-2119447716-31	10 – 25	Acute Tox. 4 (Oral), H302
2,2',6,6'-Tetrabromo-4,4'-isopropylidenediphenol, oligomeric reaction products with Propylene oxide and n-butyl glycidyl ether	EC-No. 926-564-6 REACH-no 01-2119971810-36	10 – 25	Acute Tox. 4 (Oral), H302
Ethylenediamine, ethoxylated and propoxylated	CAS-No. 26316-40-5 EC-No. 500-047-1 REACH-no 01-2119471488-26	3 – 5	Eye Irrit. 2, H319 Skin Sens. 1, H317
1-methylimidazole	CAS-No. 616-47-7 EC-No. 210-484-7 EC Index-No. 613-035-00-7	3 – 5	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Skin Corr. 1B, H314

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

SECTION 4 First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures 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 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.
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5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	Toxic fumes may be released.
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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.
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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.
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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

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.

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

Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment.

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 in a well-ventilated place. 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

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

Safety glasses. Protective clothing. Gloves.

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Safety Data Sheet

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

Personal protective equipment symbol(s)



8.2.2.1. Eye and face protection

Eye protection:

Type	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

Protective gloves

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

8.2.2.3. Respiratory protection

Respiratory protection

Wear suitable respiratory equipment in case of insufficient ventilation

Device	Filter type	Condition	Standard
	Type A - High-boiling (>65 °C) organic compounds		

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls

Avoid release to the environment.

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
Explosive limits	Not available
Lower explosive limit (LEL)	Not available
Upper explosive limit (UEL)	Not available
Flash point	> 93 °C
Auto-ignition temperature	Not available
Decomposition temperature	Not available

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pH	Not available
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
Density	Not available
Relative density	1,1 – 1,25
Relative vapour density at 20 °C	Not available
Particle size	Not applicable
Particle size distribution	Not applicable
Particle shape	Not applicable
Particle aspect ratio	Not applicable
Particle aggregation state	Not applicable
Particle agglomeration state	Not applicable
Particle specific surface area	Not applicable
Particle dustiness	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

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)	Harmful if swallowed.
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified

CF T 200, A

ATE CLP (oral)	1871,735 mg/kg bodyweight
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tris(2-chloro-1-methylethyl) phosphate (13674-84-5)

LD50 oral rat	1101 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral)
LD50 oral	1150 – 1750

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

tris(2-chloro-1-methylethyl) phosphate (13674-84-5)	
LD50 dermal rabbit	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rabbit, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 5 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s))
ATE CLP (oral)	1150 mg/kg bodyweight
2,2',6,6'-Tetrabromo-4,4'-isopropylidenediphenol, oligomeric reaction products with Propylene oxide and n-butyl glycidyl ether	
LD50 oral rat	732 mg/kg
LD50 dermal rat	> 2000 mg/kg
ATE CLP (oral)	732 mg/kg bodyweight
1-methylimidazole (616-47-7)	
LD50 oral rat	1130 mg/kg (Rat, Oral)
LD50 dermal rabbit	520 mg/kg (Rabbit, Dermal)
ATE CLP (oral)	1130 mg/kg bodyweight
ATE CLP (dermal)	520 mg/kg bodyweight
Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/irritation	Causes serious eye irritation.
Respiratory or skin sensitisation	May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
STOT-single exposure	Not classified
STOT-repeated exposure	Not classified
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 (acute)	Not classified
Hazardous to the aquatic environment, long-term (chronic)	Not classified

tris(2-chloro-1-methylethyl) phosphate (13674-84-5)	
LC50 - Fish [1]	51 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Pimephales promelas, Static system, Fresh water, Experimental value, Lethal)
EC50 - Crustacea [1]	131 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 algae	82 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)
1-methylimidazole (616-47-7)	
LC50 - Fish [1]	100 – 220 mg/l (96 h, Leuciscus idus)
EC50 - Crustacea [1]	268 mg/l (48 h, Daphnia magna)
EC50 72h - Algae [1]	180 mg/l (Algae)

12.2. Persistence and degradability

tris(2-chloro-1-methylethyl) phosphate (13674-84-5)	
Persistence and degradability	Not readily biodegradable in water.
1-methylimidazole (616-47-7)	
Persistence and degradability	Not readily biodegradable in water.

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

12.3. Bioaccumulative potential

tris(2-chloro-1-methylethyl) phosphate (13674-84-5)	
BCF - Fish [1]	0,8 – 2,8 (OECD 305: Bioconcentration: Flow-Through Fish Test, 6 week(s), Pisces, Flow-through system, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	2,68 (Experimental value, Equivalent or similar to OECD 117)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

tris(2-chloro-1-methylethyl) phosphate (13674-84-5)	
Surface tension	No data available in the literature
Partition coefficient n-octanol/water (Log Koc)	2,24 (log Koc, OECD 106: Adsorption/Desorption Using a Batch Equilibrium Method, Read-across)
Ecology - soil	Low potential for adsorption in soil.

12.5. Results of PBT and vPvB assessment

Component	
tris(2-chloro-1-methylethyl) phosphate (13674-84-5)	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	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
Ethylenediamine, ethoxylated and propoxylated (26316-40-5)	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
1-methylimidazole (616-47-7)	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

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13 Disposal considerations

13.1. Waste treatment methods

Waste treatment methods
European List of Waste (LoW) code

Dispose of contents/container in accordance with licensed collector's sorting instructions.
08 04 09* - waste adhesives and sealants containing organic solvents or other dangerous substances

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID /

ADR	IMDG	IATA	RID
14.1. UN number or ID number			
Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shipping name			
Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)			
Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group			
Not regulated	Not regulated	Not regulated	Not regulated



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ADR	IMDG	IATA	RID
14.5. Environmental hazards			
Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available			

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Rail transport

Not regulated

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

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list $\geq 0,1\%$ / SCL

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

Germany

Water hazard class (WGK)

WGK 1, Slightly hazardous to water (Classification according to AwSV, Annex 1)

Hazardous Incident Ordinance (12. BImSchV)

Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

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
			2020/878
			UFI

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
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2



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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:

Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

Acute Tox. 4 (Oral)	H302	Calculation method
Skin Irrit. 2	H315	Calculation method
Eye Irrit. 2	H319	Calculation method
Skin Sens. 1	H317	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.

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878
Issue date: 19.02.2019 Revision date: 19.02.2019 Supersedes version of: 22.11.2016 Version: 5.0

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

1.1. Product identifier

Product form	Mixture
Trade name	CF T 200, B
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

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier Hilti Deutschland AG Hiltistr. 2 86916 Kaufering - Deutschland T +49 8191 90-0 - F +49 8191 90-1122 de.kundenservice@hilti.com	Department issuing data specification sheet Hilti AG Feldkircherstraße 100 P.O. Box 333 9494 Schaan - Liechtenstein T +423 234 2111 - F +423 234 2965 www.hilti.com
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1.4. Emergency telephone number

Emergency number	Schweizerisches Toxikologisches Informationszentrum – 24h Service +41 44 251 51 51 (international)
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SECTION 2 Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP] Mixtures/Substances: SDS EU > 2015: According to Regulation (EU) 2015/830, 2020/878 (REACH Annex II)

Acute toxicity (inhalation:dust,mist) Category 4	H332
Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 2	H319
Skin sensitisation, Category 1	H317
Carcinogenicity, Category 2	H351
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation	H335
Specific target organ toxicity — Repeated exposure, Category 2	H373

Full text of H-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.

2.2. Label elements

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

Hazard pictograms (CLP)



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Signal word (CLP)	Warning
Contains	4,4'-diphenylmethanediisocyanate, isomeres and homologues
Hazard statements (CLP)	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.
Precautionary statements (CLP)	P280 - Wear protective gloves, protective clothing, eye protection. P302+P352 - IF ON SKIN: Wash with plenty of soap and water. P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 - If eye irritation persists: Get medical advice/attention. P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
Extra phrases	As from 24 August 2023 adequate training is required before industrial or professional use.
UFI	EHQS-JA9C-AGQG-FGQ8

2.3. Other hazards

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 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

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

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
4,4'-diphenylmethanediisocyanate, isomeres and homologues substance with national workplace exposure limit(s) (DE)	CAS-No. 9016-87-9	100	Acute Tox. 4 (Inhalation), H332 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

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Specific concentration limits:

Name	Product identifier	Specific concentration limits
4,4'-diphenylmethanediisocyanate, isomeres and homologues	CAS-No. 9016-87-9	(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 measures

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.

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.

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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. 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)	
Germany - Occupational Exposure Limits (TRGS 900)	
AGW (OEL TWA) [1]	0,05 mg/m ³
Peak exposure limitation factor	1;=2=(I)
Remark	DFG,H,Sah,Y,12
Regulatory reference	TRGS900

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.

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8.2.2. Personal protection equipment

Personal protective equipment

Gloves. Protective clothing. Safety glasses.

Personal protective equipment symbol(s)



8.2.2.1. Eye and face protection

Eye protection:

Type	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

Protective gloves

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

8.2.2.3. Respiratory protection

Respiratory protection

[In case of inadequate ventilation] wear respiratory protection.

Device	Filter type	Condition	Standard
	Type A - High-boiling (>65 °C) organic compounds		

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls

Avoid release to the environment.

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



SECTION 9 Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Colour	amber.

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

Odour	characteristic.
Odour threshold	Not available
Melting point	Not applicable
Freezing point	Not available
Boiling point	Not available
Flammability	Not applicable
Explosive limits	Not available
Lower explosive limit (LEL)	Not available
Upper explosive limit (UEL)	Not available
Flash point	> 93 °C
Auto-ignition temperature	Not available
Decomposition temperature	Not available
pH	Not available
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
Density	Not available
Relative density	1,1 – 1,25
Relative vapour density at 20 °C	Not available
Particle size	Not applicable
Particle size distribution	Not applicable
Particle shape	Not applicable
Particle aspect ratio	Not applicable
Particle aggregation state	Not applicable
Particle agglomeration state	Not applicable
Particle specific surface area	Not applicable
Particle dustiness	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

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.

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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)	Harmful if inhaled.

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ATE CLP (dust,mist)	1,5 mg/l/4h
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4,4'-diphenylmethanediisocyanate, isomeres and homologues (9016-87-9)

LD50 oral rat	> 10000 mg/kg (Rat, Literature study, Oral)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit, Literature study, Dermal)
ATE CLP (gases)	4500 ppmv/4h
ATE CLP (vapours)	11 mg/l/4h
ATE CLP (dust,mist)	1,5 mg/l/4h

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

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

IARC group	3 - Not classifiable
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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.

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

STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
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Aspiration hazard	Not classified
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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 (acute)	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)
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12.2. Persistence and degradability

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

Persistence and degradability	Not readily biodegradable in water.
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12.3. Bioaccumulative potential

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

BCF - Fish [1]	1 (Pisces, Literature study)
Partition coefficient n-octanol/water (Log Pow)	10,46 (Calculated, KOWWIN)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

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12.4. Mobility in soil

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

Partition coefficient n-octanol/water (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

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
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12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13 Disposal considerations

13.1. Waste treatment methods

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

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID /

ADR	IMDG	IATA	RID
14.1. UN number or ID number			
Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name			
Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)			
Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards			
Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available			

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

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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

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

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

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

Germany

Water hazard class (WGK)

WGK 1, Slightly hazardous to water (Classification according to AwSV, Annex 1)

Hazardous Incident Ordinance (12. BImSchV)

Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

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
			2020/878
			UFI
			Entry 74
2.2		Modified	
3		Modified	

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
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
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.



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Full text of H- and EUH-statements:

H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.

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
Skin Sens. 1	H317	Calculation method
Carc. 2	H351	Calculation method
STOT SE 3	H335	Calculation method
STOT RE 2	H373	Calculation method

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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.