# CFS-F SOL; CP 620

Safety information for 2-Component-products

Issue date: 03/11/2021 Revision date: 03/11/2021 Supersedes: 19/12/2017 Version: 8.0

## SECTION 1: Kit identification

### 1.1 Product identifier

| | |
|---|---|
| Trade name | CFS-F SOL; CP 620 |
| Product code | BU Fire Protection |

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

Hilti France S.A.S.
126 rue Gallieni
92100 Boulogne-Billancourt - France
T +33 825 01 05 05
fr-contactez-nous@hilti.com

## SECTION 2: General information

A SDS for each of these components is included. Please do not separate any component SDS from this cover page

## SECTION 3: Kit contents

### Classification of the Product

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

| | |
|---|---|
| Acute Tox. 4 (Inhalation) | H332 |
| Skin Irrit. 2 | H315 |
| Eye Irrit. 2 | H319 |
| Resp. Sens. 1 | H334 |
| Skin Sens. 1 | H317 |
| Carc. 2 | H351 |
| Repr. 2 | H361d |
| STOT SE 3 | H335 |
| STOT RE 2 | H373 |
| Aquatic Chronic 3 | H412 |

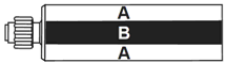
Full text of H-statements: see section 16

### Label elements

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

| | |
|---|---|
| Hazard pictograms (CLP) |  GHS07 GHS08 |
| Signal word (CLP) | Danger |
| Hazardous ingredients | 4,4'-diphenylmethanediisocyanate, isomeres and homologues; 4,4'-diphenylmethanediisocyanate; zinc borate |
| Hazard statements (CLP) | H315 - Causes skin irritation.<br>H317 - May cause an allergic skin reaction.<br>H319 - Causes serious eye irritation.<br>H332 - Harmful if inhaled.<br>H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.<br>H335 - May cause respiratory irritation.<br>H351 - Suspected of causing cancer.<br>H361d - Suspected of damaging the unborn child.<br>H373 - May cause damage to organs through prolonged or repeated exposure.<br>H412 - Harmful to aquatic life with long lasting effects. |
| Precautionary statements (CLP) | P260 - Do not breathe vapours.<br>P280 - Wear eye protection, protective clothing, protective gloves.<br>P284 - Wear respiratory protection.<br>P302+P352 - IF ON SKIN: Wash with plenty of water.<br>P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.<br>P342+P311 - If experiencing respiratory symptoms: Call a doctor, a POISON CENTER. |
| 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] |
|---|---|---|---|---|
| CP 620, B | | 1 | pcs (pieces) | Acute Tox. 4 (Inhalation:dust,mist), H332<br>Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Resp. Sens. 1, H334<br>Skin Sens. 1, H317<br>Carc. 2, H351<br>STOT SE 3, H335<br>STOT RE 2, H373 |
| CP 620, A | | 1 | pcs (pieces) | Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Repr. 2, H361<br>Aquatic Chronic 3, H412 |

## SECTION 4: General information

| | |
|---|---|
| General advice | For professional users only |

## SECTION 5: Safe handling advice

| | |
|---|---|
| Environmental precautions | Avoid release to the environment |
| Storage conditions | Store in a well-ventilated place.<br>Keep cool. |
| Precautions for safe handling | Do not handle until all safety precautions have been read and understood.<br>Wear personal protective equipment<br>Do not breathe vapours.<br>Use only outdoors or in a well-ventilated area. |

| | |
|---|---|
| | Avoid contact with skin and eyes<br>In case of inadequate ventilation wear respiratory protection. |
| Methods for cleaning up | Take up liquid spill into absorbent material<br>Notify authorities if product enters sewers or public waters |

## SECTION 6: First aid measures

| | |
|---|---|
| First-aid measures after eye contact | Rinse cautiously with water for several minutes.<br>Remove contact lenses, if present and easy to do. Continue rinsing.<br>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.<br>Call a poison center or a doctor if you feel unwell |
| First-aid measures after skin contact | Wash with plenty of water/...<br>If skin irritation or rash occurs: Get medical advice/attention.<br>Take off contaminated clothing. |
| First-aid measures general | If you feel unwell, seek medical advice (show the label where possible) |
| Symptoms/effects after eye contact | Eye irritation |
| Symptoms/effects after inhalation | May cause respiratory irritation.<br>May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| Symptoms/effects after skin contact | Irritation<br>May cause an allergic skin reaction. |
| Other medical advice or treatment | Treat symptomatically |

## SECTION 7: Fire fighting measures

| | |
|---|---|
| Protection during firefighting | Self-contained breathing apparatus<br>Complete protective clothing |
| Hazardous decomposition products in case of fire | Toxic fumes may be released<br>Carbon dioxide<br>Carbon monoxide |

## SECTION 8: Other information

No data available

# CP 620, A

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878
Issue date: 03/11/2021 Revision date: 03/11/2021 Supersedes version of: 03/07/2020 Version: 8.0

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

### 1.1. Product identifier

| | |
|---|---|
| Product form | Mixture |
| Trade name | CP 620, 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**
Hilti France S.A.S.
126 rue Gallieni
92100 Boulogne-Billancourt - France
T +33 825 01 05 05
fr-contactez-nous@hilti.com

**Department issuing data specification sheet**
Hilti AG
Feldkircherstraße 100
9494 Schaan - Liechtenstein
T +423 234 2111
chemicals.hse@hilti.com

### 1.4. Emergency telephone number

| | |
|---|---|
| Emergency number | Schweizerisches Toxikologisches Informationszentrum – 24h Service<br>+41 44 251 51 51 (international) |

## SECTION 2 Hazards identification

### 2.1. Classification of the substance or mixture

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

| | |
|---|---|
| Skin corrosion/irritation, Category 2 | H315 |
| Serious eye damage/eye irritation, Category 2 | H319 |
| Reproductive toxicity, Category 2 | H361 |
| Hazardous to the aquatic environment — Chronic Hazard, Category 3 | H412 |

Full text of H-statements: see section 16

**Adverse physicochemical, human health and environmental effects**

Suspected of damaging fertility or the unborn child. Causes skin irritation. Causes serious eye irritation. Harmful to aquatic life with long lasting effects.

### 2.2. Label elements

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

Hazard pictograms (CLP)

GHS07 GHS08

| | |
|---|---|
| Signal word (CLP) | Warning |
| Contains | Zinc borate |
| Hazard statements (CLP) | H315 - Causes skin irritation.<br>H319 - Causes serious eye irritation.<br>H361 - Suspected of damaging the unborn child..<br>H412 - Harmful to aquatic life with long lasting effects. |
| Precautionary statements (CLP) | P280 - Wear protective gloves/protective clothing/eye protection/face protection. |

| | |
|---|---|
| | P302+P352 - IF ON SKIN: Wash with plenty of soap and water.<br>P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| UFI | 25YA-KU83-E521-PEGY |

### 2.3. Other hazards

| Component | |
|---|---|
| Ethylenediamine, propoxylated (25214-63-5) | This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII<br>This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII |
| tris(2-chloro-1-methylethyl) phosphate (13674-84-5) | This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII<br>This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII |
| Zinc borate (138265-88-0) | This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII<br>This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII |
| diiron trioxide (1309-37-1) | This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII<br>This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII |
| 2-(2-(2-Dimethylaminoethoxy)-ethyl-methyl-amino)ethanol (83016-70-0) | This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII<br>This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII |
| Bis(2-dimethylaminoethyl) ether (3033-62-3) | This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII<br>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

## 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] |
|---|---|---|---|
| Ethylenediamine, propoxylated | CAS-No. 25214-63-5<br>EC-No. 500-035-6<br>REACH-no 01-2119471485-32 | 25 – 40 | Eye Irrit. 2, H319 |
| tris(2-chloro-1-methylethyl) phosphate | CAS-No. 13674-84-5<br>EC-No. 237-158-7<br>REACH-no 01-2119447716-31 | 3 – 5 | 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<br>REACH-no 01-2119971810-36 | 3 – 5 | Acute Tox. 4 (Oral), H302 |
| Zinc borate | CAS-No. 138265-88-0<br>EC-No. 235-804-2 | 3 – 5 | Repr. 2, H361d<br>Aquatic Acute 1, H400<br>Aquatic Chronic 2, H411 |

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---|---|---|---|
| diiron trioxide<br>substance with national workplace exposure limit(s) (FR) | CAS-No. 1309-37-1<br>EC-No. 215-168-2<br>REACH-no 01-2119457614-35 | 3 – 5 | Not classified |
| 2-(2-(2-Dimethylaminoethoxy)-ethyl-methyl-amino)ethanol | CAS-No. 83016-70-0<br>EC-No. 406-080-7<br>EC Index-No. 603-146-00-9<br>REACH-no 01-0000015559-60 | 1 – 3 | Acute Tox. 4 (Oral), H302<br>Skin Corr. 1B, H314<br>Aquatic Chronic 3, H412 |
| Bis(2-dimethylaminoethyl) ether | CAS-No. 3033-62-3<br>EC-No. 221-220-5 | 0 – 1 | Acute Tox. 4 (Oral), H302<br>Acute Tox. 3 (Dermal), H311<br>Acute Tox. 4 (Inhalation:dust,mist), H332<br>Skin Corr. 1B, H314<br>Aquatic Chronic 3, H412 |

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.

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 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.

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. 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.

### 6.3. Methods and material for containment and cleaning up

| | |
|---|---|
| Methods for cleaning up | Take up liquid spill into absorbent material. 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 | Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Avoid contact with skin and eyes. |
| Hygiene measures | Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. |

### 7.2. Conditions for safe storage, including any incompatibilities

| | |
|---|---|
| Storage conditions | Store locked up. 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

| **diiron trioxide (1309-37-1)** | |
|---|---|
| France - Occupational Exposure Limits | |
| Local name | Fer (trioxyde de di-,fumées),en Fe |
| VME (OEL TWA) | 5 mg/m³ |
| Note (FR) | Valeurs recommandées/admises |
| Regulatory reference | Circulaire du Ministère du travail (réf.: INRS ED 984, 2016) |

#### 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.

**Personal protective equipment symbol(s)**

#### 8.2.2.1. Eye and face protection

**Eye protection:**

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

#### 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 P1** | | |

#### 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 | red. |
| Odour | Not available |
| 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 | Not applicable. |
| Auto-ignition temperature | Not available |
| Decomposition temperature | Not available |
| pH | Not determined |
| 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 | ≈ 1,17 g/cm³ |
| Relative density | Not available |
| 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

| | |
|---|---|
| VOC content | 15 mg/l EPA method 24 (CP 620, Comp. A + B) |

## SECTION 10 Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

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

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11 Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

| | |
|---|---|
| Acute toxicity (oral) | Not classified |

| | |
|---|---|
| Acute toxicity (dermal) | Not classified |
| Acute toxicity (inhalation) | Not classified |

| **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 |
| 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 |

| **Bis(2-dimethylaminoethyl) ether (3033-62-3)** | |
|---|---|
| LD50 oral rat | 677 mg/kg bodyweight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s)) |
| LD50 dermal rabbit | 0,367 – 0,373 ml/kg (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Experimental value, Dermal, 14 day(s)) |
| LC50 Inhalation - Rat | > 2,204 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours)) |
| ATE CLP (oral) | 500 mg/kg bodyweight |
| ATE CLP (dermal) | 300 mg/kg bodyweight |
| ATE CLP (dust,mist) | 1,5 mg/l/4h |

| **2-(2-(2-Dimethylaminoethoxy)-ethyl-methyl-amino)ethanol (83016-70-0)** | |
|---|---|
| LD50 oral rat | 1364 mg/kg bodyweight (Other, Rat, Male / female, Experimental value, Oral) |
| LD50 oral | 1364 mg/kg |
| LD50 dermal rabbit | 5700 mg/kg bodyweight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Experimental value, Dermal) |
| ATE CLP (oral) | 1364 mg/kg bodyweight |
| ATE CLP (dermal) | 5700 mg/kg bodyweight |

| **diiron trioxide (1309-37-1)** | |
|---|---|
| LD50 oral rat | > 10000 mg/kg bodyweight (Rat, Male, Experimental value, Oral) |

| **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 |

| **Zinc borate (138265-88-0)** | |
|---|---|
| LD50 oral rat | > 5000 mg/kg bodyweight (FIFRA (40 CFR), Rat, Male / female, Experimental value of similar product, Oral, 14 day(s)) |
| LD50 dermal rabbit | > 5000 mg/kg bodyweight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Experimental value of similar product, Dermal, 14 day(s)) |
| LC50 Inhalation - Rat | > 4,95 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Read-across, Inhalation (dust), 14 day(s)) |

| | |
|---|---|
| Skin corrosion/irritation | Causes skin irritation.<br>pH Not determined |
| Serious eye damage/irritation | Causes serious eye irritation.<br>pH Not determined |
| Respiratory or skin sensitisation | Not classified |
| Germ cell mutagenicity | Not classified |
| Carcinogenicity | Not classified |

| **diiron trioxide (1309-37-1)** | |
|---|---|
| IARC group | 3 - Not classifiable |

| | |
|---|---|
| Reproductive toxicity | Suspected of damaging the unborn child.. |
| 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 | Harmful to aquatic life with long lasting effects. |
| Hazardous to the aquatic environment, short-term (acute) | Not classified |
| Hazardous to the aquatic environment, long-term (chronic) | Harmful to aquatic life with long lasting effects. |

| **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) |

| **Bis(2-dimethylaminoethyl) ether (3033-62-3)** | |
|---|---|
| LC50 - Fish [1] | 131,2 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Semi-static system, Fresh water, Experimental value, GLP) |
| EC50 - Crustacea [1] | 102 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP) |
| ErC50 algae | 24 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP) |

| **2-(2-(2-Dimethylaminoethoxy)-ethyl-methyl-amino)ethanol (83016-70-0)** | |
|---|---|
| LC50 - Fish [1] | > 320 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Semi-static system, Fresh water, Experimental value, GLP) |
| EC50 - Crustacea [1] | 72 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP) |
| ErC50 algae | > 110 mg/l (Equivalent or similar to OECD 201, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP) |

| **diiron trioxide (1309-37-1)** | |
|---|---|
| EC50 - Crustacea [1] | > 100 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP) |

| **Zinc borate (138265-88-0)** | |
|---|---|
| LC50 - Fish [1] | 169 µg/l (ASTM E729-88, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Read-across) |
| EC50 - Crustacea [1] | 155 – 413 µg/l (US EPA, 48 h, Ceriodaphnia dubia, Static system, Fresh water, Read-across) |

### 12.2. Persistence and degradability

| **tris(2-chloro-1-methylethyl) phosphate (13674-84-5)** | |
|---|---|
| Persistence and degradability | Not readily biodegradable in water. |

| **Bis(2-dimethylaminoethyl) ether (3033-62-3)** | |
|---|---|
| Persistence and degradability | Not readily biodegradable in water. |

| **2-(2-(2-Dimethylaminoethoxy)-ethyl-methyl-amino)ethanol (83016-70-0)** | |
|---|---|
| Persistence and degradability | Not readily biodegradable in water. |

| **diiron trioxide (1309-37-1)** | |
|---|---|
| Persistence and degradability | Biodegradability: not applicable. |
| Chemical oxygen demand (COD) | Not applicable |
| ThOD | Not applicable |
| BOD (% of ThOD) | Not applicable |

| **Zinc borate (138265-88-0)** | |
|---|---|
| Persistence and degradability | Biodegradability: not applicable. |
| Chemical oxygen demand (COD) | Not applicable |

| Zinc borate (138265-88-0) | |
|---|---|
| ThOD | Not applicable |
| BOD (% of ThOD) | Not applicable |

### 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). |
| **Bis(2-dimethylaminoethyl) ether (3033-62-3)** | |
| Partition coefficient n-octanol/water (Log Pow) | -0,339 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 20 °C) |
| Bioaccumulative potential | Not bioaccumulative. |
| **2-(2-(2-Dimethylaminoethoxy)-ethyl-methyl-amino)ethanol (83016-70-0)** | |
| Partition coefficient n-octanol/water (Log Pow) | -0,48 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 26 °C) |
| Bioaccumulative potential | Not bioaccumulative. |
| **diiron trioxide (1309-37-1)** | |
| Bioaccumulative potential | No bioaccumulation data available. |
| **Zinc borate (138265-88-0)** | |
| BCF - Fish [1] | 116 – 60960 (21 day(s), Semi-static system, Marine water, Read-across, Fresh weight) |
| Bioaccumulative potential | High potential for bioaccumulation (BCF > 5000). |

### 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. |
| **Bis(2-dimethylaminoethyl) ether (3033-62-3)** | |
| Ecology - soil | Adsorbs into the soil. |
| **2-(2-(2-Dimethylaminoethoxy)-ethyl-methyl-amino)ethanol (83016-70-0)** | |
| Surface tension | 61,3 mN/m (21 °C, 1 vol %, EU Method A.5: Surface tension) |
| Partition coefficient n-octanol/water (Log Koc) | 4,07 (log Koc, OECD draft TGP94/75, Experimental value, GLP) |
| Ecology - soil | Low potential for mobility in soil. |
| **diiron trioxide (1309-37-1)** | |
| Surface tension | Not applicable (solid) |
| Ecology - soil | Adsorbs into the soil. |
| **Zinc borate (138265-88-0)** | |
| Surface tension | Data waiving |
| Ecology - soil | Adsorbs into the soil. |

### 12.5. Results of PBT and vPvB assessment

| Component | |
|---|---|
| Ethylenediamine, propoxylated (25214-63-5) | This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII<br>This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII |
| tris(2-chloro-1-methylethyl) phosphate (13674-84-5) | This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII<br>This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII |
| Zinc borate (138265-88-0) | This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII<br>This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII |
| diiron trioxide (1309-37-1) | This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII<br>This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII |
| 2-(2-(2-Dimethylaminoethoxy)-ethyl-methyl-amino)ethanol (83016-70-0) | This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII<br>This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII |
| Bis(2-dimethylaminoethyl) ether (3033-62-3) | This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII<br>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 | Dispose of contents/container in accordance with licensed collector's sorting instructions. |
| Product/Packaging disposal recommendations | Dispose in a safe manner in accordance with local/national regulations. |
| European List of Waste (LoW) code | 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 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** | | | |
| Dangerous for the environment: No | Dangerous for the environment: No<br>Marine pollutant: No | Dangerous for the environment: No | Dangerous for the environment: No |
| No supplementary information available | | | |

### 14.6. Special precautions for user

**Overland transport**

No data available

**Transport by sea**

No data available

**Air transport**

No data available

**Rail transport**

No data available

### 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
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
VOC content 15 mg/l EPA method 24 (CP 620, Comp. A + B)

**15.1.2. National regulations**

No additional information available

### 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 |
|---|---|---|---|
| | | | Regulation (EU) 2020/878 |
| | | | UFI |

| Full text of H- and EUH-statements: | |
|---|---|
| Acute Tox. 3 (Dermal) | Acute toxicity (dermal), Category 3 |
| Acute Tox. 4 (Inhalation:dust,mist) | Acute toxicity (inhalation:dust,mist) Category 4 |
| Acute Tox. 4 (Oral) | Acute toxicity (oral), Category 4 |
| Aquatic Acute 1 | Hazardous to the aquatic environment — Acute Hazard, Category 1 |
| Aquatic Chronic 2 | Hazardous to the aquatic environment — Chronic Hazard, Category 2 |
| Aquatic Chronic 3 | Hazardous to the aquatic environment — Chronic Hazard, Category 3 |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| Repr. 2 | Reproductive toxicity, Category 2 |
| Repr. 2 | Reproductive toxicity, Category 2 |
| Skin Corr. 1B | Skin corrosion/irritation, Category 1, Sub-Category 1B |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |
| H302 | Harmful if swallowed. |
| H311 | Toxic in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H361 | Suspected of damaging fertility or the unborn child. |
| H361d | Suspected of damaging the unborn child. |
| H400 | Very toxic to aquatic life. |
| H411 | Toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |

| Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP] | | |
|---|---|---|
| Skin Irrit. 2 | H315 | Calculation method |
| Eye Irrit. 2 | H319 | Calculation method |
| Repr. 2 | H361 | Calculation method |
| Aquatic Chronic 3 | H412 | 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.

# CP 620, B

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878
Issue date: 19/12/2017 Revision date: 19/12/2017 Supersedes version of: 30/09/2016 Version: 7.0

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

### 1.1. Product identifier

| | |
|---|---|
| Product form | Mixture |
| Trade name | CP 620, 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 France S.A.S.
126 rue Gallieni
92100 Boulogne-Billancourt - France
T +33 825 01 05 05
fr-contactez-nous@hilti.com

**Department issuing data specification sheet**
Hilti AG
Feldkircherstraße 100
9494 Schaan - Liechtenstein
T +423 234 2111
chemicals.hse@hilti.com

### 1.4. Emergency telephone number

| | |
|---|---|
| Emergency number | Schweizerisches Toxikologisches Informationszentrum – 24h Service<br>+41 44 251 51 51 (international) |

## 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 |
| Respiratory sensitisation, Category 1 | H334 |
| 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. Harmful if inhaled. 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)

| | |
|---|---|
| | GHS07 GHS08 |
| Signal word (CLP) | Danger |
| Contains | 4,4'-diphenylmethanediisocyanate, isomeres and homologues |
| Hazard statements (CLP) | H315 - Causes skin irritation.<br>H317 - May cause an allergic skin reaction.<br>H319 - Causes serious eye irritation.<br>H332 - Harmful if inhaled.<br>H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.<br>H335 - May cause respiratory irritation.<br>H351 - Suspected of causing cancer.<br>H373 - May cause damage to organs through prolonged or repeated exposure. |
| Precautionary statements (CLP) | P260 - Do not breathe vapours.<br>P280 - Wear protective gloves/protective clothing/eye protection/face protection.<br>P284 - In case of inadequate ventilation wear respiratory protection.<br>P302+P352 - IF ON SKIN: Wash with plenty of soap and water.<br>P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.<br>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. |
| UFI | UYX3-1UYR-G52Y-4R6R |

### 2.3. Other hazards

No additional information available

## 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 | CAS-No. 9016-87-9 | ≥ 80 | Acute Tox. 4 (Inhalation), H332<br>Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Resp. Sens. 1, H334<br>Skin Sens. 1, H317<br>Carc. 2, H351<br>STOT SE 3, H335<br>STOT RE 2, H373 |
| tris(2-chloro-1-methylethyl) phosphate | CAS-No. 13674-84-5<br>EC-No. 237-158-7<br>REACH-no 01-2119447716-31 | 10 – 25 | Acute Tox. 4 (Oral), H302 |

**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<br>( 5 ≤C < 100) Skin Irrit. 2, H315<br>( 5 ≤C < 100) Eye Irrit. 2, H319<br>( 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 dust/fume/gas/mist/vapours/spray. 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.

### 6.3. Methods and material for containment and cleaning up

| | |
|---|---|
| Methods for cleaning up | Take up liquid spill into absorbent material. 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 dust/fume/gas/mist/vapours/spray. 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 | 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

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**

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 | Droplet | | EN 166, EN 170 |

#### 8.2.2.2. Skin protection

**Skin and body protection**

Wear suitable protective clothing

| 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. |
| Odour | No data available |
| Odour threshold | No data available |
| pH | No data available |
| Relative evaporation rate (butylacetate=1) | No data available |
| Melting point | Not applicable |
| Freezing point | No data available |
| Boiling point | No data available |
| Flash point | No data available |
| Auto-ignition temperature | No data available |
| Decomposition temperature | No data available |
| Flammability (solid, gas) | Not applicable |
| Vapour pressure | No data available |
| Relative vapour density at 20 °C | No data available |
| Relative density | No data available |
| Solubility | No data available |
| Partition coefficient n-octanol/water (Log Pow) | No data available |
| Viscosity, kinematic | No data available |
| Viscosity, dynamic | No data available |
| Explosive properties | No data available |
| Oxidising properties | No data available |
| Explosive limits | No data available |

### 9.2. Other information

| | |
|---|---|
| VOC content | 15 g/l EPA method 24 (CP 620, Comp. A + B) |

## SECTION 10 Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

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

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11 Toxicological information

### 11.1. Information on toxicological effects

| | |
|---|---|
| Acute toxicity (oral) | Not classified |
| Acute toxicity (dermal) | Not classified |
| Acute toxicity (inhalation) | Harmful if inhaled. |

| **CP 620, B** | |
|---|---|
| ATE CLP (dust,mist) | 1,667 mg/l/4h |

| **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 |

| **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 |
| 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 |

| | |
|---|---|
| Skin corrosion/irritation | Causes skin irritation. |
| Serious eye damage/irritation | Causes serious eye irritation. |
| Respiratory or skin sensitisation | May cause allergy or asthma symptoms or breathing difficulties if inhaled. 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 |

| | |
|---|---|
| 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. |
| Aspiration hazard | Not classified |

## 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) |

| 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) |

### 12.2. Persistence and degradability

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

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

### 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). |

| 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

| 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. |

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

| Component | |
|---|---|
| tris(2-chloro-1-methylethyl) phosphate (13674-84-5) | This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII<br>This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII |

### 12.6. 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. |
| Product/Packaging disposal recommendations | Dispose in a safe manner in accordance with local/national regulations. |
| European List of Waste (LoW) code | 08 05 01* - waste isocyanates<br>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** | | | |
| 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** | | | |
| Dangerous for the environment: No | Dangerous for the environment: No<br>Marine pollutant: No | Dangerous for the environment: No | Dangerous for the environment: No |
| No supplementary information available | | | |

### 14.6. Special precautions for user

**Overland transport**

No data available

**Transport by sea**

No data available

**Air transport**

No data available

**Rail transport**

No data available

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

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

| EU restriction list (REACH Annex XVII) | |
|---|---|
| **Reference code** | **Applicable on** |
| 74. | 4,4'-diphenylmethanediisocyanate, isomeres and homologues |

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
VOC content 15 g/l EPA method 24 (CP 620, Comp. A + B)

#### 15.1.2. National regulations

No additional information available

### 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 |
|---|---|---|---|
| 2.1 | Classification according to Regulation (EC) No. 1272/2008 [CLP] | Modified | |
| 2.2 | Hazard statements (CLP) | 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 |
| Acute Tox. 4 (Oral) | Acute toxicity (oral), 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 |
| H302 | Harmful if swallowed. |
| 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. |

| **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 |

| Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP] | | |
|---|---|---|
| Eye Irrit. 2 | H319 | Calculation method |
| Resp. Sens. 1 | H334 | 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.