# CFS-F FX / CP 660

Safety information for 2-Component-products

Issue date: 21/11/2024 Revision date: 21/11/2024 Supersedes: 01/08/2024 Version: 7.3

## SECTION 1: Kit identification

### 1.1 Product identifier

| | |
|---|---|
| Trade name | CFS-F FX / CP 660 |
| Product code | BU Fire Protection |

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

Hilti (Gt. Britain) Ltd.
1 Circle Square
3 Symphony Park
M1 7FS Manchester - Great Britain
T +44 161 886 1000
0800 886 100 Toll-free - F +44 161 872 1240
gbsales@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 |
| STOT SE 3 | H335 |
| STOT RE 2 | H373 |

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

### Label elements

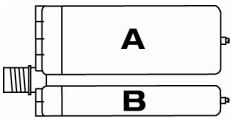
**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

# CFS-F FX / CP 660

Kit Safety Information Sheet (SIS)

| | |
|---|---|
| Hazard pictograms (CLP) |  GHS07 GHS08 |
| Signal word (CLP) | Danger |
| Hazardous ingredients | 4,4'-diphenylmethanediisocyanate, isomeres and homologues; Ethylenediamine, ethoxylated and propoxylated |
| 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 eye protection, protective clothing, protective gloves.<br>P284 - In case of inadequate ventilation 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] |
|---|---|---|---|---|
| CFS-F FX, A / CP 660, A | | 1 | pcs (pieces) | Skin Sens. 1, H317 |
| CFS-F FX, B / CP 660, 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 |

## 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.<br>Avoid contact with skin and eyes |

| | |
|---|---|
| | 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

# CFS-F FX, A / CP 660, A

## Safety Data Sheet

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

Issue date: 21/11/2024 Revision date: 21/11/2024 Supersedes version of: 01/08/2024 Version: 7.3

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

### 1.1. Product identifier

| | |
|---|---|
| Product form | Mixture |
| Trade name | CFS-F FX, A / CP 660, A |
| UFI | AR4G-FWTW-1628-26VC |
| Product code | BU Fire Protection |

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

#### 1.2.1. Relevant identified uses

| | |
|---|---|
| Main use category | Professional use |
| Industrial/Professional use spec | For professional use only |
| Use of the substance/mixture | Firestop foam |

#### 1.2.2. Uses advised against

No additional information available

### 1.3. Details of the supplier of the safety data sheet

**Supplier**
Hilti (Gt. Britain) Ltd.
1 Circle Square
3 Symphony Park
GB M1 7FS Manchester
Great Britain
T +44 161 886 1000
0800 886 100 Toll-free, F +44 161 872 1240
gbsales@hilti.com

**Department issuing data specification sheet**
Hilti AG
Feldkircherstraße 100
FL 9494 Schaan
Liechtenstein
T +423 234 2111
product.compliance-fire.protection@hilti.com

### 1.4. Emergency telephone number

Emergency number

Emergency CONTACT (24-Hour-Number):
GBK GmbH Global Regulatory Compliance
+49 (0)6132-84463

+44 161 886 1000
0800 886 100 Toll-free

| Country | Organisation/Company | Address | Emergency number | Comment |
|---|---|---|---|---|
| United Kingdom | NHS Direct (England and Wales)<br>NHS 24 (Scotland) | | 111 | |

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

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

Skin sensitisation, Category 1 H317

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

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

May cause an allergic skin reaction.

## 2.2. Label elements

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

Hazard pictograms (CLP)

GHS07

| | |
|---|---|
| Signal word (CLP) | Warning |
| Contains | Ethylenediamine, ethoxylated and propoxylated |
| Hazard statements (CLP) | H317 - May cause an allergic skin reaction. |
| Precautionary statements (CLP) | P280 - Wear protective gloves, protective clothing, eye 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. |

## 2.3. Other hazards

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

| Component | |
|---|---|
| 2-octyl-2H-isothiazol-3-one (26530-20-1) | 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 |
| 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 |
| Ethylenediamine, ethoxylated and propoxylated (26316-40-5) | 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 |
| Mixture of 5-chloro-2-methylisothiazol-3(2H)-one and 2-methylisothiazol-3(2H)-one (55965-84-9) | 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 |
| iron(III) oxide (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 |

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

| Component | |
|---|---|
| iron(III) oxide (1309-37-1) | 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, propoxylated (25214-63-5) | 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 |
| 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 |

| Component | |
|---|---|
| 2-octyl-2H-isothiazol-3-one (26530-20-1) | 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 |
| Mixture of 5-chloro-2-methylisothiazol-3(2H)-one and 2-methylisothiazol-3(2H)-one (55965-84-9) | 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] |
|---|---|---|---|
| iron(III) oxide<br>substance with national workplace exposure limit(s) (GB) | CAS-No.: 1309-37-1<br>EC-No.: 215-168-2<br>REACH-no: 01-2119457614-35 | 2.5 – 5 | Not classified |
| Ethylenediamine, propoxylated | CAS-No.: 25214-63-5<br>EC-No.: 500-035-6<br>REACH-no: 01-2119471485-32 | 2,5 - <5 | Eye Irrit. 2, H319 |
| Ethylenediamine, ethoxylated and propoxylated | CAS-No.: 26316-40-5<br>EC-No.: 500-047-1<br>REACH-no: 01-2119471488-26 | 2,5 - <5 | Eye Irrit. 2, H319<br>Skin Sens. 1, H317 |
| 2-octyl-2H-isothiazol-3-one | CAS-No.: 26530-20-1<br>EC-No.: 247-761-7<br>EC Index-No.: 613-112-00-5 | <0.0015 | Acute Tox. 2 (Inhalation), H330 (ATE=0.27 mg/l)<br>Acute Tox. 3 (Dermal), H311 (ATE=311 mg/kg bodyweight)<br>Acute Tox. 3 (Oral), H301 (ATE=125 mg/kg bodyweight)<br>Skin Corr. 1, H314<br>Eye Dam. 1, H318<br>Skin Sens. 1A, H317<br>Aquatic Acute 1, H400 (M=100)<br>Aquatic Chronic 1, H410 (M=100)<br>EUH071 |

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---|---|---|---|
| Mixture of 5-chloro-2-methylisothiazol-3(2H)-one and 2-methylisothiazol-3(2H)-one | CAS-No.: 55965-84-9<br>EC Index-No.: 613-167-00-5 | <0,0015 | Acute Tox. 3 (Oral), H301 (ATE=66 mg/kg bodyweight)<br>Acute Tox. 2 (Dermal), H310 (ATE=50 mg/kg bodyweight)<br>Acute Tox. 2 (Inhalation), H330 (ATE=0.05 mg/l/4h)<br>Skin Corr. 1C, H314<br>Eye Dam. 1, H318<br>Skin Sens. 1A, H317<br>Aquatic Acute 1, H400 (M=100)<br>Aquatic Chronic 1, H410 (M=100)<br>EUH071 |

| Specific concentration limits: | | |
|---|---|---|
| **Name** | **Product identifier** | **Specific concentration limits** |
| 2-octyl-2H-isothiazol-3-one | CAS-No.: 26530-20-1<br>EC-No.: 247-761-7<br>EC Index-No.: 613-112-00-5 | (0.0015 ≤ C ≤ 100) Skin Sens. 1A, H317 |
| Mixture of 5-chloro-2-methylisothiazol-3(2H)-one and 2-methylisothiazol-3(2H)-one | CAS-No.: 55965-84-9<br>EC Index-No.: 613-167-00-5 | (0.0015 ≤ C ≤ 100) Skin Sens. 1A, H317<br>(0.06 ≤ C < 0.6) Skin Irrit. 2, H315<br>(0.06 ≤ C < 0.6) Eye Irrit. 2, H319<br>(0.6 ≤ C ≤ 100) Skin Corr. 1C, H314<br>(0.6 ≤ C ≤ 100) Eye Dam. 1, H318 |

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: Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. 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: May cause an allergic skin reaction.

### 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. Carbon monoxide. Carbon dioxide.

### 5.3. Advice for firefighters

| | |
|---|---|
| Protection during firefighting | 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 | For further information refer to section 8: "Exposure controls/personal protection". Use personal protective equipment as required. |

### 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. |
| 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. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. |

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

| | |
|---|---|
| Storage conditions | Store in a 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

| iron(III) oxide (1309-37-1) | |
|---|---|
| **United Kingdom - Occupational Exposure Limits** | |
| WEL TWA (OEL TWA) | 5 mg/m³ |
| WEL STEL (OEL STEL) | 10 mg/m³ |

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

No additional information available

#### 8.1.5. Control banding

No additional information available

### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

**Appropriate engineering controls:**
Ensure good ventilation of the work station.

#### 8.2.2. Personal protection equipment

**Personal protective equipment:**
Protective clothing. Safety glasses. Gloves. Avoid all unnecessary exposure.

**Personal protective equipment symbol(s):**

#### 8.2.2.1. Eye and face protection

**Eye protection:**
Chemical goggles or safety glasses

#### 8.2.2.2. Skin protection

**Skin and body protection:**
Wear suitable protective clothing

**Hand protection:**
Wear suitable gloves tested to EN374. Suitable for short-term work or as a splash guard:
Nitrile rubber gloves (> 0.1 mm). In case of permanent product contact:

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

#### 8.2.2.3. Respiratory protection

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

#### 8.2.2.4. Thermal hazards

No additional information available

#### 8.2.3. Environmental exposure controls

**Environmental exposure controls:**
Avoid release to the environment.
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 |
| Lower explosion limit | Not available |
| Upper explosion limit | 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 characteristics | Not applicable |

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

No additional information available

## 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 |

| **2-octyl-2H-isothiazol-3-one (26530-20-1)** | |
|---|---|
| LD50 oral rat | 550 mg/kg (Rat, Literature study, Oral) |
| LD50 oral | 355 mg/kg |
| LD50 dermal rabbit | 690 mg/kg bodyweight (Rabbit, Literature study, Dermal) |
| LD50 dermal | 311 mg/kg |
| LC50 Inhalation - Rat | > 2 mg/m³ (4 h, Rat, Literature study, Inhalation (vapours)) |
| LC50 Inhalation - Rat (Dust/Mist) | 0.586 mg/l/4h |

| **Ethylenediamine, ethoxylated and propoxylated (26316-40-5)** | |
|---|---|
| LD50 oral rat | > 5000 mg/kg bodyweight |
| LD50 dermal rabbit | > 5000 mg/kg bodyweight |

| **Mixture of 5-chloro-2-methylisothiazol-3(2H)-one and 2-methylisothiazol-3(2H)-one (55965-84-9)** | |
|---|---|
| LD50 oral rat | 66 mg/kg bodyweight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Calculated by reference to active substance, Oral, 14 day(s)) |
| LD50 dermal rat | > 141 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s)) |
| LC50 Inhalation - Rat | 0.17 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Calculated by reference to active substance, Inhalation (dust), 14 day(s)) |

| **iron(III) oxide (1309-37-1)** | |
|---|---|
| LD50 oral rat | > 10000 mg/kg bodyweight (Rat, Male, Experimental value, Oral) |
| LD50 oral | 10000 mg/kg |
| LC50 Inhalation - Rat | 5.05 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s)) |
| LC50 Inhalation - Rat (Dust/Mist) | 5.05 mg/l/4h |

| | |
|---|---|
| Skin corrosion/irritation | Not classified<br>pH: Not determined |
| Serious eye damage/irritation | Not classified<br>pH: Not determined |
| Respiratory or skin sensitisation | May cause an allergic skin reaction. |
| Germ cell mutagenicity | Not classified |
| Carcinogenicity | Not classified |

| **iron(III) oxide (1309-37-1)** | |
|---|---|
| IARC group | 3 - Not classifiable |

| | |
|---|---|
| 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 |

| **2-octyl-2H-isothiazol-3-one (26530-20-1)** | |
|---|---|
| LC50 - Fish [1] | 0.14 mg/l (96 h, Pimephales promelas, Literature study) |
| LC50 - Fish [2] | 0.05 mg/l (96 h, Oncorhynchus mykiss, Literature study) |
| EC50 - Crustacea [1] | 0.18 mg/l (48 h, Daphnia magna, Literature study) |
| EC50 - Crustacea [2] | 0.32 mg/l (48 h, Daphnia magna, Literature study) |
| NOEC chronic fish | 0.012 mg/l |

| **Ethylenediamine, propoxylated (25214-63-5)** | |
|---|---|
| LC50 - Fish [1] | 4500 mg/l Leuciscus idus (golden orfe) |
| EC50 72h - Algae [1] | 35 mg/l |
| NOEC chronic crustacea | > 1 mg/l |

| **Mixture of 5-chloro-2-methylisothiazol-3(2H)-one and 2-methylisothiazol-3(2H)-one (55965-84-9)** | |
|---|---|
| LC50 - Fish [1] | 0.19 mg/l (EPA OPP 72-1, 96 h, Oncorhynchus mykiss, Flow-through system, Fresh water, Experimental value, GLP) |
| EC50 - Crustacea [1] | 0.007 mg/l (48 h, Acartia tonsa, Salt water, Experimental value, GLP) |
| ErC50 algae | 19.9 µg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Skeletonema costatum, Static system, Salt water, Experimental value, GLP) |

| **iron(III) oxide (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) |

### 12.2. Persistence and degradability

| **2-octyl-2H-isothiazol-3-one (26530-20-1)** | |
|---|---|
| Persistence and degradability | Inherently biodegradable. |

| **Mixture of 5-chloro-2-methylisothiazol-3(2H)-one and 2-methylisothiazol-3(2H)-one (55965-84-9)** | |
|---|---|
| Persistence and degradability | Not readily biodegradable in water. |

| **iron(III) oxide (1309-37-1)** | |
|---|---|
| Persistence and degradability | Biodegradability: not applicable. |
| Chemical oxygen demand (COD) | Not applicable (inorganic) |
| ThOD | Not applicable (inorganic) |

### 12.3. Bioaccumulative potential

| **2-octyl-2H-isothiazol-3-one (26530-20-1)** | |
|---|---|
| BCF - Fish [1] | 1280 (67 day(s), Lepomis macrochirus, Flow-through system, Literature study) |
| Partition coefficient n-octanol/water (Log Pow) | 2.45 (Experimental value) |
| Bioaccumulative potential | Potential for bioaccumulation (500 ≤ BCF ≤ 5000). |

| **Mixture of 5-chloro-2-methylisothiazol-3(2H)-one and 2-methylisothiazol-3(2H)-one (55965-84-9)** | |
|---|---|
| BCF - Fish [1] | 41 – 54 (OECD 305: Bioconcentration: Flow-Through Fish Test, 28 day(s), Lepomis macrochirus, Flow-through system, Fresh water, Experimental value, Fresh weight) |
| Partition coefficient n-octanol/water (Log Pow) | -0.32 – 0.7 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 20 °C) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |

| **iron(III) oxide (1309-37-1)** | |
|---|---|
| Bioaccumulative potential | Not bioaccumulative. |

### 12.4. Mobility in soil

| **2-octyl-2H-isothiazol-3-one (26530-20-1)** | |
|---|---|
| Ecology - soil | No (test)data on mobility of the substance available. |

| **Mixture of 5-chloro-2-methylisothiazol-3(2H)-one and 2-methylisothiazol-3(2H)-one (55965-84-9)** | |
|---|---|
| Surface tension | No data available in the literature |
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 0.81 – 1 (log Koc, Calculated value) |
| Ecology - soil | Highly mobile in soil. |

| **iron(III) oxide (1309-37-1)** | |
|---|---|
| Surface tension | Not applicable (solid) |
| Ecology - soil | Adsorbs into the soil. |

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Endocrine disrupting properties

No additional information available

### 12.7. Other adverse effects

No additional information available

## 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. |
| Additional information | packaging containing residues of or contaminated by dangerous substances. Dispose in a safe manner in accordance with local/national regulations. |
| European List of Waste (LoW, EC 2000/532) | 08 04 09* - waste adhesives and sealants containing organic solvents or other dangerous substances |

| | |
|---|---|
| HP Code | HP4 - “Irritant – skin irritation and eye damage:” waste which on application can cause skin irritation or damage to the eye. |

## 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**

**REACH Annex XVII (Restriction List)**

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

**REACH Annex XIV (Authorisation List)**

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

**REACH Candidate List (SVHC)**

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

**PIC Regulation (Prior Informed Consent)**

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

**POP Regulation (Persistent Organic Pollutants)**

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

**Ozone Regulation (1005/2009)**

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

**Explosives Precursors Regulation (2019/1148)**

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

**Drug Precursors Regulation (273/2004)**

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

**15.1.2. National regulations**

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

**Indication of changes:**
Modified.

| Indication of changes | | | |
|---|---|---|---|
| **Section** | **Changed item** | **Change** | **Comments** |
| | | | Mal-Code |

| Abbreviations and acronyms: | |
|---|---|
| CAS-No. | Chemical Abstract Service number |
| ADN | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways |
| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road |
| ATE | Acute Toxicity Estimate |
| BCF | Bioconcentration factor |
| BLV | Biological limit value |
| BOD | Biochemical oxygen demand (BOD) |
| CLP | Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008 |
| DMEL | Derived Minimal Effect level |
| DNEL | Derived-No Effect Level |
| EC-No. | European Community number |

| Abbreviations and acronyms: | |
|---|---|
| EC50 | Median effective concentration |
| ED | Endocrine disrupting properties |
| EN | European Standard |
| IARC | International Agency for Research on Cancer |
| IATA | International Air Transport Association |
| IMDG | International Maritime Dangerous Goods |
| IOELV | Indicative Occupational Exposure Limit Value |
| LC50 | Median lethal concentration |
| LD50 | Median lethal dose |
| LOAEL | Lowest Observed Adverse Effect Level |
| N.O.S. | Not Otherwise Specified |
| NOAEC | No-Observed Adverse Effect Concentration |
| NOAEL | No-Observed Adverse Effect Level |
| NOEC | No-Observed Effect Concentration |
| vPvB | Very Persistent and Very Bioaccumulative |
| WGK | Water Hazard Class |
| VOC | Volatile Organic Compounds |
| SDS | Safety Data Sheet |
| RID | Regulations concerning the International Carriage of Dangerous Goods by Rail |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006 |
| PNEC | Predicted No-Effect Concentration |
| PBT | Persistent Bioaccumulative Toxic |
| OEL | Occupational Exposure Limit |
| OECD | Organisation for Economic Co-operation and Development |
| COD | Chemical oxygen demand (COD) |
| ThOD | Theoretical oxygen demand (ThOD) |
| TRGS | Technical Rules for Hazardous Substances |
| TLM | Median Tolerance Limit |
| STP | Sewage treatment plant |

| Full text of H- and EUH-statements: | |
|---|---|
| Acute Tox. 2 (Dermal) | Acute toxicity (dermal), Category 2 |
| Acute Tox. 2 (Inhalation) | Acute toxicity (inhal.), Category 2 |
| Acute Tox. 3 (Dermal) | Acute toxicity (dermal), Category 3 |
| Acute Tox. 3 (Oral) | Acute toxicity (oral), Category 3 |

| Full text of H- and EUH-statements: | |
|---|---|
| Aquatic Acute 1 | Hazardous to the aquatic environment – Acute Hazard, Category 1 |
| Aquatic Chronic 1 | Hazardous to the aquatic environment – Chronic Hazard, Category 1 |
| EUH071 | Corrosive to the respiratory tract. |
| Eye Dam. 1 | Serious eye damage/eye irritation, Category 1 |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| H301 | Toxic if swallowed. |
| H310 | Fatal in contact with skin. |
| 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. |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| H330 | Fatal if inhaled. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| Skin Corr. 1 | Skin corrosion/irritation, Category 1 |
| Skin Corr. 1C | Skin corrosion/irritation, Category 1, Sub-Category 1C |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |
| Skin Sens. 1 | Skin sensitisation, Category 1 |
| Skin Sens. 1A | Skin sensitisation, category 1A |

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

# CFS-F FX, B / CP 660, B

## Safety Data Sheet

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

Issue date: 21/11/2024 Revision date: 21/11/2024 Supersedes version of: 01/08/2024 Version: 7.3

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

### 1.1. Product identifier

| | |
|---|---|
| Product form | Mixture |
| Trade name | CFS-F FX, B / CP 660, B |
| UFI | F5EY-8STE-712P-RNAW |
| 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 |
| Use of the substance/mixture | Firestop foam |

#### 1.2.2. Uses advised against

No additional information available

### 1.3. Details of the supplier of the safety data sheet

**Supplier**

Hilti (Gt. Britain) Ltd.
1 Circle Square
3 Symphony Park
GB M1 7FS Manchester
Great Britain
T +44 161 886 1000
0800 886 100 Toll-free, F +44 161 872 1240
gbsales@hilti.com

**Department issuing data specification sheet**

Hilti AG
Feldkircherstraße 100
FL 9494 Schaan
Liechtenstein
T +423 234 2111
product.compliance-fire.protection@hilti.com

### 1.4. Emergency telephone number

Emergency number

Emergency CONTACT (24-Hour-Number):
GBK GmbH Global Regulatory Compliance
+49 (0)6132-84463

+44 161 886 1000
0800 886 100 Toll-free

| Country | Organisation/Company | Address | Emergency number | Comment |
|---|---|---|---|---|
| United Kingdom | NHS Direct (England and Wales)<br>NHS 24 (Scotland) | | 111 | |

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

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

| | |
|---|---|
| Acute toxicity (inhalation:dust,mist) Category 4 | 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- and EUH-statements: see section 16

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

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

## 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; 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate |
| 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 (respiratory system) through prolonged or repeated exposure (inhalation). |
| Precautionary statements (CLP) | P260 - Do not breathe vapours.<br>P280 - Wear eye protection, protective clothing, protective gloves.<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. |

## 2.3. Other hazards

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

| Component | |
|---|---|
| 4,4'-diphenylmethanediisocyanate, isomeres and homologues (9016-87-9) | This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII<br>This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII |
| 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate (101-68-8) | 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 substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

| Component | |
|---|---|
| 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 |
| 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate (101-68-8) | 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<br>substance with national workplace exposure limit(s) (GB) | CAS-No.: 9016-87-9<br>EC-No.: 618-498-9 | 50 – 100 | Acute Tox. 4 (Inhalation), H332 (ATE=1.5 mg/l/4h)<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 |
| 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate | CAS-No.: 101-68-8<br>EC-No.: 202-966-0<br>EC Index-No.: 615-005-00-9<br>REACH-no: 01-2119457014-47 | 20 – 40 | Acute Tox. 4 (Inhalation:dust,mist), H332 (ATE=1.5 mg/l/4h)<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 |

| Specific concentration limits: | | |
|---|---|---|
| **Name** | **Product identifier** | **Specific concentration limits** |
| 4,4'-diphenylmethanediisocyanate, isomeres and homologues | CAS-No.: 9016-87-9<br>EC-No.: 618-498-9 | (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 |
| 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate | CAS-No.: 101-68-8<br>EC-No.: 202-966-0<br>EC Index-No.: 615-005-00-9<br>REACH-no: 01-2119457014-47 | (0.1 ≤ C ≤ 100) Resp. Sens. 1, H334<br>(5 ≤ C ≤ 100) Eye Irrit. 2, H319<br>(5 ≤ C ≤ 100) Skin Irrit. 2, H315<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 after inhalation | Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell. Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER/doctor. |
| First-aid measures after skin contact | Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention. Wash with plenty of water/…. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention. Specific treatment (see supplemental first aid instruction on this label). If skin irritation or rash occurs: |
| 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. If eye irritation persists: Get medical advice/attention. |
| First-aid measures after ingestion | Call a poison center or a doctor if you feel unwell. Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. |

### 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. Danger of serious damage to health by prolonged exposure through inhalation. May cause an allergic skin reaction. |
| Symptoms/effects after skin contact | Irritation. May cause an allergic skin reaction. Causes skin irritation. |
| Symptoms/effects after eye contact | Eye irritation. Causes serious 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. Sand. |
| Unsuitable extinguishing media | Do not use a heavy water stream. |

### 5.2. Special hazards arising from the substance or mixture

| | |
|---|---|
| Hazardous decomposition products in case of fire | Toxic fumes may be released. Carbon dioxide. Carbon monoxide. |

### 5.3. Advice for firefighters

| | |
|---|---|
| Firefighting instructions | Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment. |
| Protection during firefighting | Self-contained breathing apparatus. Complete protective clothing. Do not enter fire area without proper protective equipment, including respiratory protection. |

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

| | |
|---|---|
| Emergency procedures | Ventilate spillage area. Do not breathe vapours. Avoid contact with skin and eyes. Evacuate unnecessary personnel. |

#### 6.1.2. For emergency responders

| | |
|---|---|
| Protective equipment | Use personal protective equipment as required. For further information refer to section 8: "Exposure controls/personal protection". Equip cleanup crew with proper protection. |
| Emergency procedures | Ventilate area. |

### 6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

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

| | |
|---|---|
| Methods for cleaning up | Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. |
| Other information | Dispose of materials or solid residues at an authorized site. |

### 6.4. Reference to other sections

For further information refer to section 13. See Section 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

| | |
|---|---|
| Precautions for safe handling | Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Do not eat, drink or smoke when using this product. Avoid contact with skin and eyes. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapours/spray. Obtain special instructions before use. |
| Hygiene measures | Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wash hands, forearms and face thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. |

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

| | |
|---|---|
| Storage conditions | Store in a well-ventilated place. Keep cool. Keep only in the original container in a cool, well ventilated place away from : Keep container tightly closed. |
| Incompatible products | Strong bases. Strong acids. |
| Incompatible materials | Sources of ignition. Direct sunlight. |
| 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) | |
|---|---|
| **United Kingdom - Occupational Exposure Limits** | |
| WEL TWA (OEL TWA) | 0.02 mg/m³ |
| WEL STEL (OEL STEL) | 0.07 mg/m³ |

#### 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. Avoid all unnecessary exposure.

**Personal protective equipment symbol(s):**

#### 8.2.2.1. Eye and face protection

**Eye protection:**
Chemical goggles or safety glasses. ISO 16321-1. EN 170

| 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:**
Wear suitable gloves tested to EN374. Suitable for short-term work or as a splash guard:
Nitrile rubber gloves (> 0.1 mm). In case of permanent product contact:

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

#### 8.2.2.3. Respiratory protection

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

#### 8.2.2.4. Thermal hazards

No additional information available

#### 8.2.3. Environmental exposure controls

**Environmental exposure controls:**
Avoid release to the environment.

**Other information:**
Do not eat, drink or smoke during use.
As from 24 August 2023 adequate training is required before industrial or professional use,www.feica.eu/PUinfo

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

| | |
|---|---|
| Physical state | Liquid |
| Colour | amber. |
| Odour | characteristic. |
| Odour threshold | Not available |
| Melting point | Not applicable |
| Freezing point | Not available |
| Boiling point | Not available |
| Flammability | Not applicable,Non flammable. |
| Lower explosion limit | Not available |
| Upper explosion limit | Not available |
| Flash point | > 200 °C |
| Auto-ignition temperature | Not available |
| Decomposition temperature | Not available |
| pH | Not available |
| Viscosity, kinematic | 299.766 mm²/s |
| Viscosity, dynamic | 346.23 mPa·s |
| Solubility | Not available |
| Partition coefficient n-octanol/water (Log Kow) | Not available |
| Vapour pressure | 0.1 mbar |
| Vapour pressure at 50°C | Not available |
| Density | 1.155 kg/l |
| Relative density | Not available |
| Relative vapour density at 20°C | Not available |
| Particle characteristics | Not applicable |

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

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

### 10.2. Chemical stability

Stable under normal conditions. Not established.

### 10.3. Possibility of hazardous reactions

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

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7). Direct sunlight. Extremely high or low temperatures.

### 10.5. Incompatible materials

Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

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

## SECTION 11: Toxicological information

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

| | |
|---|---|
| Acute toxicity (oral) | Not classified |
| Acute toxicity (dermal) | Not classified |
| Acute toxicity (inhalation) | Inhalation:dust,mist: Harmful if inhaled. |

| **CFS-F FX, B / CP 660, B** | |
|---|---|
| ATE CLP (dust,mist) | 1.5 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) |
| LD50 dermal | 9400 mg/kg |
| LC50 Inhalation - Rat | 0.49 mg/l |

| **4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate (101-68-8)** | |
|---|---|
| LD50 oral rat | > 2000 mg/kg |
| LD50 oral | 31600 mg/kg |
| LD50 dermal rabbit | > 9400 mg/kg |
| LC50 Inhalation - Rat (Dust/Mist) | > 0.368 mg/l/4h |

| | |
|---|---|
| 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 |
| Additional information | Based on available data, the classification criteria are not met |
| Carcinogenicity | Suspected of causing cancer. |

| **4,4'-diphenylmethanediisocyanate, isomeres and homologues (9016-87-9)** | |
|---|---|
| IARC group | 3 - Not classifiable |

| **4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate (101-68-8)** | |
|---|---|
| IARC group | 3 - Not classifiable |

| | |
|---|---|
| Reproductive toxicity | Not classified |
| Additional information | Based on available data, the classification criteria are not met |
| STOT-single exposure | May cause respiratory irritation. |

| 4,4'-diphenylmethanediisocyanate, isomeres and homologues (9016-87-9) | |
|---|---|
| STOT-single exposure | May cause respiratory irritation. |

| 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate (101-68-8) | |
|---|---|
| STOT-single exposure | May cause respiratory irritation. |
| STOT-repeated exposure | May cause damage to organs (respiratory system) through prolonged or repeated exposure (inhalation). |

| 4,4'-diphenylmethanediisocyanate, isomeres and homologues (9016-87-9) | |
|---|---|
| STOT-repeated exposure | May cause damage to organs through prolonged or repeated exposure. |

| 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate (101-68-8) | |
|---|---|
| STOT-repeated exposure | May cause damage to organs through prolonged or repeated exposure. |

| | |
|---|---|
| Aspiration hazard | Not classified |
| Additional information | Based on available data, the classification criteria are not met |

| CFS-F FX, B / CP 660, B | |
|---|---|
| Viscosity, kinematic | 299.766 mm²/s |

### 11.2. Information on other hazards

#### 11.2.1. Endocrine disrupting properties

#### 11.2.2. Other information

| | |
|---|---|
| Potential adverse human health effects and symptoms | Harmful if inhaled. |

## 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) |

### 12.2. Persistence and degradability

| CFS-F FX, B / CP 660, B | |
|---|---|
| Persistence and degradability | Not established. |

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

### 12.3. Bioaccumulative potential

| CFS-F FX, B / CP 660, B | |
|---|---|
| Bioaccumulative potential | Not established. |

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

### 12.4. Mobility in soil

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

### 12.5. Results of PBT and vPvB assessment

| CFS-F FX, B / CP 660, B |
|---|
| 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

Additional information: Avoid release to the environment.

## 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. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Additional information: packaging containing residues of or contaminated by dangerous substances. Dispose in a safe manner in accordance with local/national regulations.

Ecological information: Avoid release to the environment.

European List of Waste (LoW, EC 2000/532): 08 05 01* - waste isocyanates
08 04 09* - waste adhesives and sealants containing organic solvents or other dangerous substances

HP Code: HP5 - "Specific Target Organ Toxicity (STOT)/Aspiration Toxicity:" waste which can cause specific target organ toxicity either from a single or repeated exposure, or which cause acute toxic effects following aspiration.
HP6 - "Acute Toxicity:" waste which can cause acute toxic effects following oral or dermal administration, or inhalation exposure.
HP7 - "Carcinogenic:" waste which induces cancer or increases its incidence
HP4 - "Irritant – skin irritation and eye damage:" waste which on application can cause skin irritation or damage to the eye.
HP13 - "Sensitising:" waste which contains one or more substances known to cause sensitising effects to the skin or the respiratory organs.

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID /

| ADR | IMDG | IATA | RID |
|---|---|---|---|
| **14.1. UN number or ID 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 |
| **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**

**REACH Annex XVII (Restriction List)**

| EU restriction list (REACH Annex XVII) | |
|---|---|
| **Reference code** | **Applicable on** |
| 74. | CFS-F FX, B / CP 660, B ; 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate |

**REACH Annex XIV (Authorisation List)**

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

**REACH Candidate List (SVHC)**

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

**PIC Regulation (Prior Informed Consent)**

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

**POP Regulation (Persistent Organic Pollutants)**

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

**Ozone Regulation (1005/2009)**

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

**Explosives Precursors Regulation (2019/1148)**

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

**Drug Precursors Regulation (273/2004)**

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

**15.1.2. National regulations**

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** |
| 3 | | Modified | MAI-Code |

| Abbreviations and acronyms: | |
|---|---|
| CAS-No. | Chemical Abstract Service number |
| ADN | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways |
| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road |
| ATE | Acute Toxicity Estimate |
| BCF | Bioconcentration factor |
| BLV | Biological limit value |
| BOD | Biochemical oxygen demand (BOD) |
| CLP | Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008 |
| DMEL | Derived Minimal Effect level |
| DNEL | Derived-No Effect Level |
| EC-No. | European Community number |
| EC50 | Median effective concentration |
| ED | Endocrine disrupting properties |
| EN | European Standard |
| IARC | International Agency for Research on Cancer |
| IATA | International Air Transport Association |
| IMDG | International Maritime Dangerous Goods |

| Abbreviations and acronyms: | |
|---|---|
| IOELV | Indicative Occupational Exposure Limit Value |
| LC50 | Median lethal concentration |
| LD50 | Median lethal dose |
| LOAEL | Lowest Observed Adverse Effect Level |
| N.O.S. | Not Otherwise Specified |
| NOAEC | No-Observed Adverse Effect Concentration |
| NOAEL | No-Observed Adverse Effect Level |
| NOEC | No-Observed Effect Concentration |
| vPvB | Very Persistent and Very Bioaccumulative |
| WGK | Water Hazard Class |
| VOC | Volatile Organic Compounds |
| SDS | Safety Data Sheet |
| RID | Regulations concerning the International Carriage of Dangerous Goods by Rail |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006 |
| PNEC | Predicted No-Effect Concentration |
| PBT | Persistent Bioaccumulative Toxic |
| OEL | Occupational Exposure Limit |
| OECD | Organisation for Economic Co-operation and Development |
| COD | Chemical oxygen demand (COD) |
| ThOD | Theoretical oxygen demand (ThOD) |
| TRGS | Technical Rules for Hazardous Substances |
| TLM | Median Tolerance Limit |
| STP | Sewage treatment plant |

| | |
|---|---|
| Data sources | REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. |
| Other information | None. |

| Full text of H- and EUH-statements: | |
|---|---|
| Acute Tox. 4 (Inhalation) | Acute toxicity (inhal.), Category 4 |
| Acute Tox. 4 (Inhalation:dust,mist) | Acute toxicity (inhalation:dust,mist) Category 4 |
| Carc. 2 | Carcinogenicity, Category 2 |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |

| Full text of H- and EUH-statements: | |
|---|---|
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H335 | May cause respiratory irritation. |
| H351 | Suspected of causing cancer. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| Resp. Sens. 1 | Respiratory sensitisation, Category 1 |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |
| Skin Sens. 1 | Skin sensitisation, Category 1 |
| STOT RE 2 | Specific target organ toxicity – Repeated exposure, Category 2 |
| STOT SE 3 | Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation |

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

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.