

# CFS-F FX / CP 660

## Safety information for 2-Component-products

Issue date: 22/11/2024

Revision date: 22/11/2024

Supersedes: 17/10/2022

Version: 6.2

### 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

P.T. Hilti Nusantara  
The Garden Center Level 3 No. 3-11B, Kawasan Komersial Cilandak  
Jl. Raya Cilandak KKO  
12560 Jakarta - Indonesia  
T +62 21 789 0850 - F +62 21 7890845  
[moid@hilti.com](mailto:moid@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:

#### Classification of the Product

##### Classification according to the United Nations GHS

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

#### Label elements

##### Labelling according to the United Nations GHS

Hazard pictograms (GHS UN)



GHS07

GHS08

Signal word (GHS UN)

Danger

Hazardous ingredients

4,4'-diphenylmethanediisocyanate, isomeres and homologues; Ethylenediamine, ethoxylated and propoxylated

Hazard statements (GHS UN)

H315 - Causes skin irritation.  
H317 - May cause an allergic skin reaction.  
H319 - Causes serious eye irritation.  
H332 - Harmful if inhaled.

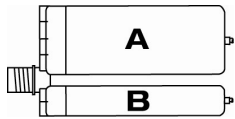
# CFS-F FX / CP 660

## Safety information for 2-Component-products

### Precautionary statements (GHS UN)

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.  
P260 - Do not breathe vapours.  
P280 - Wear eye protection, protective clothing, protective gloves.  
P284 - In case of inadequate ventilation wear respiratory protection.  
P302+P352 - IF ON SKIN: Wash with plenty of water.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P342+P311 - If experiencing respiratory symptoms: Call a doctor, a POISON CENTER.

### Additional information



Name	General description	Quantity	Unit	Classification according to the United Nations GHS
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 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 Carc. 2, H351 STOT SE 3, H335 STOT RE 2, H373

### SECTION 4: General advice

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. Keep cool.
Precautions for safe handling	Do not handle until all safety precautions have been read and understood. Wear personal protective equipment Do not breathe vapours. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes In case of inadequate ventilation wear respiratory protection.
Methods for cleaning up	Take up liquid spill into absorbent material 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. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	Call a poison center or a doctor if you feel unwell
First-aid measures after inhalation	Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell
First-aid measures after skin contact	Wash with plenty of water/... If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing.

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## Safety information for 2-Component-products

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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. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Symptoms/effects after skin contact	Irritation May cause an allergic skin reaction.
Other medical advice or treatment	Treat symptomatically

### SECTION 7: Fire fighting measures

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

### SECTION 8: Other information

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## Safety Data Sheet

according to the United Nations GHS (Rev. 9, 2021)

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Version: 6.2

### SECTION 1: Identification

#### 1.1. GHS Product identifier

Product form	Mixture
Trade name	CFS-F FX, A / CP 660, A
Product code	BU Fire Protection

#### 1.2. Other means of identification

No additional information available

#### 1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture	Firestop foam
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#### 1.4. Supplier's details

##### Supplier

P.T. Hilti Nusantara  
The Garden Center Level 3 No. 3-11B, Kawasan Komersial Cilandak  
Jl. Raya Cilandak KKO  
ID 12560 Jakarta  
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##### Department issuing data specification sheet

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FL 9494 Schaan  
Liechtenstein  
T +423 234 2111  
[product.compliance-fire.protection@hilti.com](mailto:product.compliance-fire.protection@hilti.com)

#### 1.5. Emergency phone number

Emergency number	Emergency CONTACT (24-Hour-Number): GBK GmbH Global Regulatory Compliance +49 (0)6132-84463  +62 21 789 0850
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### SECTION 2: Hazard identification

#### 2.1. Classification of the substance or mixture

##### Classification according to the United Nations GHS

Skin sensitisation, Category 1	H317
Full text of H-statements: see section 16	
Adverse physicochemical, human health and environmental effects	May cause an allergic skin reaction.

#### 2.2. GHS Label elements, including precautionary statements

##### Labelling according to the United Nations GHS

Hazard pictograms (GHS UN)



Signal word (GHS UN)  
Hazardous ingredients  
Hazard statements (GHS UN)  
Precautionary statements (GHS UN)

Warning  
Ethylenediamine, ethoxylated and propoxylated  
H317 - May cause an allergic skin reaction  
P280 - Wear eye protection, protective clothing, protective gloves.  
P302+P352 - IF ON SKIN: Wash with plenty of water.

#### 2.3. Other hazards which do not result in classification

No additional information available

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### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product identifier	%	Classification according to the United Nations GHS
Ethylenediamine, propoxylated	CAS-No.: 25214-63-5	2,5 - <5	Flammable liquids Not classified Serious eye damage/eye irritation, Category 2A, H319 Hazardous to the aquatic environment – Acute Hazard Not classified Hazardous to the aquatic environment – Chronic Hazard Not classified
Ethylenediamine, ethoxylated and propoxylated	CAS-No.: 26316-40-5	2,5 - <5	Flammable liquids Not classified Serious eye damage/eye irritation, Category 2A, H319 Skin sensitisation, Category 1, H317 Serious eye damage/eye irritation, Category 2, H319

Full text of H-statements: see section 16

### SECTION 4: First-aid measures

#### 4.1. Description of necessary 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/effects, acute and delayed

Symptoms/effects after skin contact	May cause an allergic skin reaction.
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#### 4.3. Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

### SECTION 5: Fire-fighting measures

#### 5.1. Suitable extinguishing media

Suitable extinguishing media	Water spray. Dry powder. Foam. Carbon dioxide.
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#### 5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire	Toxic fumes may be released. Carbon monoxide. Carbon dioxide.
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#### 5.3. Special protective actions for fire-fighters

Protection during firefighting	Self-contained breathing apparatus. Complete protective clothing.
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### Personal protective equipment symbol(s)



### 8.4. Exposure limit values for the other components

No additional information available

## SECTION 9: Physical and chemical properties

### 9.1. Basic physical and chemical properties

Physical state	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
pH solution	Not available
Viscosity, kinematic (calculated value) (40 °C)	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
Solubility	Not available
Particle size	Not applicable

### 9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

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

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

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

### 10.5. Incompatible materials

No additional information available

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### 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)	Not classified

Ethylenediamine, ethoxylated and propoxylated (26316-40-5)	
LD50 oral rat	> 5000 mg/kg bodyweight
LD50 dermal rabbit	> 5000 mg/kg bodyweight
Skin corrosion/irritation	Not classified pH: Not determined
Serious eye damage/irritation	Not classified pH: Not determined
Respiratory or skin sensitisation	May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
STOT-single exposure	Not classified
STOT-repeated exposure	Not classified
Aspiration hazard	Not classified

## 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

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

### 12.2. Persistence and degradability

CFS-F FX, A / CP 660, A	
Persistence and degradability	No additional information available

### 12.3. Bioaccumulative potential

CFS-F FX, A / CP 660, A	
Bioaccumulative potential	No additional information available

### 12.4. Mobility in soil

CFS-F FX, A / CP 660, A	
Mobility in soil	No additional information available



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### 12.5. Other adverse effects

Ozone	Not classified
Other adverse effects	No additional information available

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

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

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID /

ADR	IMDG	IATA	RID
<b>14.1. UN number or ID number</b>			
Not applicable	Not applicable	Not applicable	Not applicable
<b>14.2. UN proper shipping name</b>			
Not applicable	Not applicable	Not applicable	Not applicable
<b>14.3. Transport hazard class(es)</b>			
Not applicable	Not applicable	Not applicable	Not applicable
<b>14.4. Packing group</b>			
Not applicable	Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>			
Dangerous for the environment: No	Dangerous for the environment: No 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

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### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations specific for the product in question

No additional information available

### SECTION 16: Other information

SDS Major/Minor	None
Issue date	22/11/2024
Revision date	22/11/2024
Supersedes	17/10/2022

Section	Changed item	Change	Comments
			general update

#### 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  
 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)



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TRGS - Technical Rules for Hazardous Substances  
TLM - Median Tolerance Limit  
STP - Sewage treatment plant

Full text of H-statements:	
Aquatic Acute Not classified	Hazardous to the aquatic environment – Acute Hazard Not classified
Aquatic Chronic Not classified	Hazardous to the aquatic environment – Chronic Hazard Not classified
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Flam. Liq. Not classified	Flammable liquids Not classified
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation

SDS\_UN\_Hilti

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



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

## Safety Data Sheet

according to the United Nations GHS (Rev. 9, 2021)

Issue date: 22/11/2024 Revision date: 22/11/2024

Supersedes: 17/10/2022

Version: 6.2

### SECTION 1: Identification

#### 1.1. GHS Product identifier

Product form	Mixture
Trade name	CFS-F FX, B / CP 660, B
Product code	BU Fire Protection

#### 1.2. Other means of identification

No additional information available

#### 1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture	Firestop foam
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#### 1.4. Supplier's details

##### Supplier

P.T. Hilti Nusantara  
The Garden Center Level 3 No. 3-11B, Kawasan Komersial Cilandak  
Jl. Raya Cilandak KKO  
ID 12560 Jakarta  
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[moid@hilti.com](mailto:moid@hilti.com)

##### Department issuing data specification sheet

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FL 9494 Schaan  
Liechtenstein  
T +423 234 2111  
[product.compliance-fire.protection@hilti.com](mailto:product.compliance-fire.protection@hilti.com)

#### 1.5. Emergency phone number

Emergency number	Emergency CONTACT (24-Hour-Number): GBK GmbH Global Regulatory Compliance +49 (0)6132-84463  +62 21 789 0850
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### SECTION 2: Hazard identification

#### 2.1. Classification of the substance or mixture

##### Classification according to the United Nations GHS

Acute toxicity (inhalation:dust,mist) Category 4	H332
Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 2A	H319
Respiratory sensitisation, Category 1	H334
Skin sensitisation, Category 1	H317
Carcinogenicity, Category 2	H351
Specific target organ toxicity – Single exposure, Category 3,	H335
Respiratory tract irritation	
Specific target organ toxicity – Repeated exposure, Category 2	H373

Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects

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

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## Safety Data Sheet

according to the United Nations GHS (Rev. 9, 2021)

### 2.2. GHS Label elements, including precautionary statements

#### Labelling according to the United Nations GHS

Hazard pictograms (GHS UN)



Signal word (GHS UN)

Danger

Hazardous ingredients

4,4'-diphenylmethanediisocyanate, isomeres and homologues; 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate

Hazard statements (GHS UN)

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

Precautionary statements (GHS UN)

P260 - Do not breathe vapours.

P280 - Wear eye protection, protective clothing, protective gloves.

P284 - In case of inadequate ventilation wear respiratory protection.

P302+P352 - IF ON SKIN: Wash with plenty of water.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P342+P311 - If experiencing respiratory symptoms: Call a doctor, a POISON CENTER.

### 2.3. Other hazards which do not result in classification

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

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## Safety Data Sheet

according to the United Nations GHS (Rev. 9, 2021)

### 3.2. Mixtures

Name	Product identifier	%	Classification according to the United Nations GHS
4,4'-diphenylmethanediisocyanate, isomeres and homologues	CAS-No.: 9016-87-9	60 – 80	Flammable liquids Not classified Acute toxicity (oral) Not classified Acute toxicity (dermal) Not classified Acute toxicity (inhal.), 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
4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate	CAS-No.: 101-68-8	10 – 25	Acute toxicity (oral) Not classified Acute toxicity (dermal) Not classified Acute toxicity (inhal.), Category 4, H332 Acute toxicity (inhalation:dust,mist) Category 4, H332 Skin corrosion/irritation, Category 2, H315 Serious eye damage/eye irritation, Category 2, H319 Serious eye damage/eye irritation, Category 2A, 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

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

## Safety Data Sheet

according to the United Nations GHS (Rev. 9, 2021)

### SECTION 4: First-aid measures

#### 4.1. Description of necessary 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/effects, 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.
Potential adverse human health effects and symptoms	Harmful if inhaled.

#### 4.3. Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

### SECTION 5: Fire-fighting measures

#### 5.1. Suitable extinguishing media

Suitable extinguishing media	Water spray. Dry powder. Foam. Carbon dioxide. Sand.
Unsuitable extinguishing media	Do not use a heavy water stream.

#### 5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire	Toxic fumes may be released. Carbon dioxide. Carbon monoxide.
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#### 5.3. Special protective actions for fire-fighters

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.
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##### 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.
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## Safety Data Sheet

according to the United Nations GHS (Rev. 9, 2021)

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

Skin and body protection

Wear suitable protective clothing

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)

### Personal protective equipment symbol(s)



### 8.4. Exposure limit values for the other components

No additional information available

## SECTION 9: Physical and chemical properties

### 9.1. Basic physical and chemical properties

Physical state	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
pH solution	Not available
Viscosity, kinematic (calculated value) (40 °C)	299,766 mm²/s
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
Solubility	Not available
Viscosity, dynamic	346,23 mPa·s
Particle size	Not applicable

### 9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

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

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

## Safety Data Sheet

according to the United Nations GHS (Rev. 9, 2021)

### 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 toxicological effects

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

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ATE UN (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
Carcinogenicity	Suspected of causing cancer.
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.
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 through prolonged or repeated exposure.

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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
CFS-F FX, B / CP 660, B	
Viscosity, kinematic	299,766 mm <sup>2</sup> /s
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)	
Not rapidly degradable	
Persistence and degradability	Not readily biodegradable in water.
4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate (101-68-8)	
Not rapidly degradable	

### 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 Kow)	10,46 (Calculated, KOWWIN)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

### 12.4. Mobility in soil

CFS-F FX, B / CP 660, B	
Mobility in soil	No additional information available
4,4'-diphenylmethanediisocyanate, isomeres and homologues (9016-87-9)	
Surface tension	No data available in the literature

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4,4'-diphenylmethanediisocyanate, isomeres and homologues (9016-87-9)	
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. Other adverse effects

Ozone	Not classified
Other adverse effects	No additional information available
Other information	Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Disposal 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.
Ecological information	Avoid release to the environment.
Additional information	packaging containing residues of or contaminated by dangerous substances. Dispose in a safe manner in accordance with local/national regulations.

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID /

ADR	IMDG	IATA	RID
<b>14.1. UN number or ID number</b>			
Not regulated	Not regulated	Not regulated	Not regulated
<b>14.2. UN proper shipping name</b>			
Not regulated	Not regulated	Not regulated	Not regulated
<b>14.3. Transport hazard class(es)</b>			
Not regulated	Not regulated	Not regulated	Not regulated
<b>14.4. Packing group</b>			
Not regulated	Not regulated	Not regulated	Not regulated
<b>14.5. Environmental hazards</b>			
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

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**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 specific for the product in question**

No additional information available

**SECTION 16: Other information**

SDS Major/Minor	None
Issue date	22/11/2024
Revision date	22/11/2024
Supersedes	17/10/2022

Section	Changed item	Change	Comments
			general update

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
- 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



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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  
None.

Other information

Full text of H-statements:	
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. Not classified (Dermal)	Acute toxicity (dermal) Not classified
Acute Tox. Not classified (Oral)	Acute toxicity (oral) Not classified
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. Not classified	Flammable liquids Not classified
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

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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.