

## CFS-F FX / CP 660

Safety information for 2-Component-products

Issue date: 17/10/2022 Revision date: 17/10/2022 Supersedes: 19/12/2017

Version: 6.1

### **SECTION 1: Kit identification**

### **1.1 Product identifier**

Trade name



Product code

**BU Fire Protection** 

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

Hilti (South Africa) (Pty) Ltd. 2 Tugela Lane, Waterfall Logistics Precinct Corner Bridal Veil Road and R101 2090 Midrand - South Africa T +2711 237300 - F +2711 2373111 Customercare.za@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.
18/10/2022 EN (English)	1/19

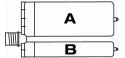


## CFS-F FX / CP 660

Safety information for 2-Component-products

- 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.

### **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 advic		
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.



## CFS-F FX / CP 660

Safety information for 2-Component-products

First-aid measures general Symptoms/effects after eye contact	If you feel unwell, seek medical advice (show the label where possible) 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

Hazardous decomposition products in case of fire

Self-contained breathing apparatus Complete protective clothing Toxic fumes may be released Carbon dioxide Carbon monoxide

### **SECTION 8: Other information**

No data available



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according to the United Nations GHS (Rev. 9, 2021) Issue date: 17/10/2022 Revision date: 17/10/2022

Supersedes: 18/12/2017

Version: 6.1

SECTION 1: Identification	
1.1. GHS Product identifier	
Product form Trade name Product code	Mixture CFS-F FX, B / CP 660, B BU Fire Protection
1.2. Other means of identification	
No additional information available	
1.3. Recommended use of the chemical and re	estrictions on use
Use of the substance/mixture	Firestop foam
1.4. Supplier's details	
Supplier Hilti (South Africa) (Pty) Ltd. 2 Tugela Lane, Waterfall Logistics Precinct Corner Brida R101 ZA– 2090 Midrand South Africa T +2711 237300 - F +2711 2373111 Customercare.za@hilti.com	Department issuing data specification sheet   Hilti AG   dal Veil Road and   Feldkircherstraße 100   FL- 9494 Schaan   Liechtenstein   T +423 234 2111   chemicals.hse@hilti.com
1.5. Emergency phone number	
Emergency number	Schweizerisches Toxikologisches Informationszentrum – 24h Service +41 44 251 51 51 (international) +2711 237300
SECTION 2: Hazard identification	
2.1. Classification of the substance or mixture	A

## 2.1. Classification of the substance of mixture

Classification according	to the United Nations GHS	5	
Acute toxicity (inhalation:d	lust,mist) Category 4		H332
Skin corrosion/irritation, Ca	ategory 2		H315
Serious eye damage/eye i	rritation, Category 2A		H319
Respiratory sensitisation,	Category 1		H334
Skin sensitisation, Catego	ry 1		H317
Carcinogenicity, Category	2		H351
Specific target organ toxic Respiratory tract irritation	ity – Single exposure, Categ	ory 3,	H335
Specific target organ toxic	ity – Repeated exposure, Ca	tegory 2	H373
Full text of H-statements:	see section 16		
Adverse physicochemical, environmental effects	human health and	Suspected of c exposure,May	0

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

2.2. GHS Label elements, including precaution	onary 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



## CFS-F FX, B / CP 660, B Safety Data Sheet

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

.2. Mixtures			
Name	Product identifier	%	Classification according to the United Nations GHS
4,4'-diphenylmethanediisocyanate, isomeres and homologues	CAS-No.: 9016-87-9	0 – 100	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	25 – 60	Acute toxicity (dermal) Not classified Acute toxicity (inhal.), 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, Respiratory tract irritation, H335 Specific target organ toxicity – Repeated exposure, Category 2, H373

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. Call a poison center or a doctor if you feel unwell.
First-aid measures after skin contact	Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	Call a poison center or a doctor if you feel unwell.
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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.
Symptoms/effects after skin contact	Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact	Eye irritation.
	ttention 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.
5.2. Specific hazards arising from the chemi	cal
Hazardous decomposition products in case of fire	Toxic fumes may be released. Carbon dioxide. Carbon monoxide.
5.3. Special protective actions for fire-fighte	rs
Protection during firefighting	Self-contained breathing apparatus. Complete protective clothing.
SECTION 6: Accidental release mea	sures
6.1. Personal precautions, protective equipment	nent and emergency procedures
6.1.1. For non-emergency personnel	
Emergency procedures	Ventilate spillage area. Do not breathe vapours. Avoid contact with skin and eyes.
6.1.2. For emergency responders	
Protective equipment	Use personal protective equipment as required. For further information refer to section 8:
	"Exposure controls/personal protection".
6.2. Environmental precautions	
Avoid release to the environment.	
6.3. Methods and materials 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.

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.
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 an	ny incompatibilities
Storage conditions Storage temperature	Store in a well-ventilated place. Keep cool. 5 – 25 °C

### SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available



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

### 8.2. Appropriate engineering controls

Appropriate engineering controls Environmental exposure controls Ensure good ventilation of the work station. Avoid release to the environment.

### 8.3. Individual protection measures, such as personal protective equipment (PPE)

Hand protection Protective gloves. EN 374						
Туре	Material	Permeation	Permeation Thickness (mm) Penetration		on	Standard
Disposable gloves	Nitrile rubber (NBR)	3 (> 60 minutes)				EN ISO 374
Eye protection Chemical goggles or safety glasses. EN 166. EN 170						
Туре		Field of application Characteristics Standard			indard	
Safety glasses		Droplet EN 166, EN 17		166, EN 170		
Skin and body protection Respiratory protection	1	Wear suitable protective clothing In case of insufficient ventilation, wear suitable respiratory equipment. Not necessary with sufficient ventilation				
Device		Filter type	Con	dition	Sta	Indard
		Type A - High-boiling (>6 organic compounds	65 °C)			

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
Lower explosion limit	Not available
Upper explosion limit	Not available
Flash point	> 200 °C
Auto-ignition temperature	Not available
Decomposition temperature	Not available
рН	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
40/40/0000	



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Viscosity, dynamic Particle size 346,23 mPa.s 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

### **10.6. Hazardous decomposition products**

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

SECTION 11: Toxicological informatic	on		
11.1. Information on toxicological effects			
Acute toxicity (oral)	Not classified		
Acute toxicity (dermal)	Not classified		
Acute toxicity (inhalation)	Harmful if inhaled.		
CFS-F FX, B / CP 660, B			
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)		
4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate (101-68-8)			
LD50 oral rat	> 2000 mg/kg		
LD50 dermal rabbit	> 9400 mg/kg		
LC50 Inhalation - Rat	> 0,354 g/m <sup>3</sup>		
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.		



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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.		
4,4'-diphenylmethanediisocyanate, isomeres and homologues (9016-87-9)			
TOT-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 mm²/s		

<b>SECTION 12: Ecological information</b>	
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	No additional information available
4,4'-diphenylmethanediisocyanate, isomeres	and homologues (9016-87-9)
Not rapidly degradable	
Persistence and degradability	Not readily biodegradable in water.
12.3. Bioaccumulative potential	
CFS-F FX, B / CP 660, B	
Bioaccumulative potential	No additional information available
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
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	9,078 – 10,597 (log Koc, SRC PCKOCWIN v2.0, Calculated value)



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4,4'-diphenylmethanediisocyanate, isomeres and homologues (9016-87-9)		
Ecology - soil Adsorbs into the soil.		
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 Product/Packaging disposal recommendations Additional information Dispose of contents/container in accordance with licensed collector's sorting instructions. Dispose in a safe manner in accordance with local/national regulations. 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	ΙΑΤΑ	RID	
14.1. UN number or ID number				
Not applicable	Not applicable	Not applicable	Not applicable	
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	
14.5. Environmental hazards				
Not applicable	Not applicable	Not applicable	Not applicable	
No supplementary information availab	le	1		

### 14.6. Special precautions for user

### **Overland transport**

Not applicable

Transport by sea Not applicable

Air transport Not applicable

Rail transport Not applicable

### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable



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

## **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	17/10/2022
Revision date	17/10/2022
Supersedes	18/12/2017

Section	Changed item	Change	Comments
			general update

Full text of H-statements:	
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

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, A / CP 660, A Safety Data Sheet

according to the United Nations GHS (Rev. 9, 2021) Issue date: 17/10/2022 Revision date: 17/10/2022

Supersedes: 19/12/2017

Version: 6.1

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	l restrictions on us	5e	
Use of the substance/mixture	Firestop foam		
1.4. Supplier's details			
Supplier		Department issuing data specification sheet	
Hilti (South Africa) (Pty) Ltd.		Hilti AG	
2 Tugela Lane, Waterfall Logistics Precinct Corner B	ridal Veil Road and	Feldkircherstraße 100	
R101		FL– 9494 Schaan	
ZA– 2090 Midrand		Liechtenstein	
South Africa T +2711 237300 - F +2711 2373111		T +423 234 2111	
Customercare.za@hilti.com		chemicals.hse@hilti.com	
1.5. Emergency phone number			
		Tavilalaniashaa lufammatianasantu ma 24h Camilaa	
		Toxikologisches Informationszentrum – 24h Service	
Emergency number	Schweizerisches +41 44 251 51 51 +2711 237300	-	
	+41 44 251 51 51	-	
SECTION 2: Hazard identification	+41 44 251 51 51 +2711 237300	-	
SECTION 2: Hazard identification 2.1. Classification of the substance or mixtu	+41 44 251 51 51 +2711 237300	-	
SECTION 2: Hazard identification 2.1. Classification of the substance or mixtu Classification according to the United Nations Gl	+41 44 251 51 51 +2711 237300 Jre HS	(international)	
SECTION 2: Hazard identification 2.1. Classification of the substance or mixtu Classification according to the United Nations GI Skin sensitisation, Category 1	+41 44 251 51 51 +2711 237300 Jre HS	-	
SECTION 2: Hazard identification 2.1. Classification of the substance or mixtu Classification according to the United Nations GI Skin sensitisation, Category 1 Full text of H-statements: see section 16	+41 44 251 51 51 +2711 237300 Jre HS	(international) 317	
SECTION 2: Hazard identification 2.1. Classification of the substance or mixtu Classification according to the United Nations GI Skin sensitisation, Category 1 Full text of H-statements: see section 16 Adverse physicochemical, human health and	+41 44 251 51 51 +2711 237300 Jre HS	(international)	
SECTION 2: Hazard identification 2.1. Classification of the substance or mixtu Classification according to the United Nations GI Skin sensitisation, Category 1 Full text of H-statements: see section 16 Adverse physicochemical, human health and environmental effects	+41 44 251 51 51 +2711 237300 <b>ure</b> <b>HS</b> May cause an alle	(international) 317 ergic skin reaction.	
SECTION 2: Hazard identification 2.1. Classification of the substance or mixtu Classification according to the United Nations GI Skin sensitisation, Category 1 Full text of H-statements: see section 16 Adverse physicochemical, human health and environmental effects 2.2. GHS Label elements, including precaut	+41 44 251 51 51 +2711 237300 <b>ure</b> <b>HS</b> May cause an alle	(international) 317 ergic skin reaction.	
SECTION 2: Hazard identification 2.1. Classification of the substance or mixtu Classification according to the United Nations GI Skin sensitisation, Category 1 Full text of H-statements: see section 16 Adverse physicochemical, human health and environmental effects 2.2. GHS Label elements, including precaut Labelling according to the United Nations GHS	+41 44 251 51 51 +2711 237300 <b>ure</b> <b>HS</b> May cause an alle	(international) 317 ergic skin reaction.	
SECTION 2: Hazard identification 2.1. Classification of the substance or mixtu Classification according to the United Nations GI Skin sensitisation, Category 1 Full text of H-statements: see section 16 Adverse physicochemical, human health and environmental effects 2.2. GHS Label elements, including precaut Labelling according to the United Nations GHS	+41 44 251 51 51 +2711 237300 <b>ure</b> <b>HS</b> May cause an alle	(international) 317 ergic skin reaction.	
SECTION 2: Hazard identification 2.1. Classification of the substance or mixtu Classification according to the United Nations GI Skin sensitisation, Category 1 Full text of H-statements: see section 16 Adverse physicochemical, human health and environmental effects 2.2. GHS Label elements, including precaut Labelling according to the United Nations GHS Hazard pictograms (GHS UN)	+41 44 251 51 51 +2711 237300 ure HS May cause an alle ionary statements	(international) 317 ergic skin reaction.	
SECTION 2: Hazard identification 2.1. Classification of the substance or mixtu Classification according to the United Nations GI Skin sensitisation, Category 1 Full text of H-statements: see section 16 Adverse physicochemical, human health and environmental effects 2.2. GHS Label elements, including precaut Labelling according to the United Nations GHS Hazard pictograms (GHS UN)	+41 44 251 51 51 +2711 237300 ure HS May cause an alle ionary statements Warning	(international) 317 ergic skin reaction.	
SECTION 2: Hazard identification 2.1. Classification of the substance or mixtu Classification according to the United Nations GI Skin sensitisation, Category 1 Full text of H-statements: see section 16 Adverse physicochemical, human health and environmental effects 2.2. GHS Label elements, including precaut	+41 44 251 51 51 +2711 237300 Jre HS H May cause an alle ionary statements Warning Ethylenediamine,	(international) 317 ergic skin reaction.	
SECTION 2: Hazard identification 2.1. Classification of the substance or mixtu Classification according to the United Nations GI Skin sensitisation, Category 1 Full text of H-statements: see section 16 Adverse physicochemical, human health and environmental effects 2.2. GHS Label elements, including precaut Labelling according to the United Nations GHS Hazard pictograms (GHS UN) Signal word (GHS UN) Hazardous ingredients	+41 44 251 51 51 +2711 237300	(international) 317 ergic skin reaction.	

No additional information available



Safety Data Sheet

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

### **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
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

Full text of H-statements: see section 16

<b>SECTION 4: First-aid measures</b>	
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.

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.	
5.2. Specific hazards arising from the chemi	cal	
Hazardous decomposition products in case of fire	Toxic fumes may be released. Carbon monoxide. Carbon dioxide.	
5.3. Special protective actions for fire-fighter	rs	
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.



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6.2. Environmental precautions	
Avoid release to the environment.	
6.3. Methods and materials for con	tainment 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.
SECTION 7: Handling and sto	brage
	orage
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, in	cluding any incompatibilities
Change and differen	Otans in a well wantilated place. Keen eest

Storage conditions Storage temperature Store in a well-ventilated place. Keep cool. 5-25 °C

### SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Appropriate engineering controls

Appropriate engineering controls Environmental exposure controls Ensure good ventilation of the work station. Avoid release to the environment.

### 8.3. Individual protection measures, such as personal protective equipment (PPE)

Hand protection   Protective gloves. EN 374					
Туре	Material	Permeation T	hickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	3 (> 60 minutes)			EN ISO 374
Eye protection		Safety glasses. EN 166. E	N 170		
Туре		Field of application Characteristics Standard			Standard
Safety glasses					EN 166, EN 170
Skin and body protection	n	Wear suitable protective clothing			1
Respiratory protection		Not necessary with sufficie	ent ventilation		
Device		Filter type	Condition		Standard
		Type A - High-boiling (>68 organic compounds	5 °C)		

Personal protective equipment symbol(s)



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

No additional information available



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### **SECTION 9: Physical and chemical properties**

### 9.1. Basic physical and chemical properties

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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
рН	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

### **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) Acute toxicity (dermal) Acute toxicity (inhalation) Not classified Not classified Not classified



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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
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
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 Product/Packaging disposal recommendations Additional information Dispose of contents/container in accordance with licensed collector's sorting instructions. Dispose in a safe manner in accordance with local/national regulations. 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 /



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ADR	IMDG	ΙΑΤΑ	RID			
14.1. UN number or ID number						
Not applicable	Not applicable	Not applicable	Not applicable			
14.2. UN proper shipping nam	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 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 specific for the product in question

No additional information available

### **SECTION 16: Other information**

SDS Major/Minor	None
Issue date	17/10/2022
Revision date	17/10/2022
Supersedes	19/12/2017

Section	Changed item	Change	Comments
			general update

Full text of H-statements:				
H317	May cause an allergic skin reaction			
18/10/2022	EN (English)	19/10		



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Full text of H-statements:		
H319	Causes serious eye irritation	

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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.