

# CFS-CT / CP 670 / CP 673

## Safety Data Sheet

According to SS 586 Part 3 (2022)  
Issue date: 25.06.2025

Revision date: 25.06.2025

Supersedes: 30.03.2020

Version: 4.1

### SECTION 1: Identification

#### 1.1. Product identifier

Trade name	CFS-CT / CP 670 / CP 673
Product code	BU Fire Protection
Generic name	CFS-CT_CP670_CP673_CP676
Product form	Mixture



#### 1.2. Other means of identification

No additional information available

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

No additional information available

#### 1.4. Supplier's details

##### Supplier

Hilti Far East Private Ltd.  
80 Pasir Panjang Road, #16-83/84 Mapletree Business City Singapore  
Singapur 117372  
T +65 6777 7887 - F +65 6777 3057  
[sg-customerservice@hilti.com](mailto:sg-customerservice@hilti.com)

##### Department issuing data specification sheet

Hilti AG  
Feldkircherstraße 100 Schaan Liechtenstein 9494  
T +423 234 2111  
[product.compliance-fire.protection@hilti.com](mailto:product.compliance-fire.protection@hilti.com)

#### 1.5. Emergency phone number

Emergency number	GBK GmbH Global Regulatory Compliance +49 (0)6132-84463
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### SECTION 2: Hazard identification

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

Health hazards	Reproductive toxicity, Category 2
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#### 2.2. GHS label elements, including precautionary statements

##### Hazard pictograms (GHS SG)



##### Signal word (GHS SG)

Warning

##### Hazard statements (GHS SG)

H361 : Suspected of damaging fertility or the unborn child

##### Precautionary statements

##### Prevention

P273 : Avoid release to the environment.

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

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### Response

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

P308+P313 : IF exposed or concerned: Get medical advice/attention.

### 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

### 3.2. Mixtures

Name	Synonyms	Concentration (%)	Formula	Product identifier	GHS SG classification
hexaboron dizinc undecaoxide, heptahydrate	Borogard ZB / boron zinc hydroxide oxide (B12Zn4(OH)14O15) / boron zinc oxide (B6-Zn2-O11) / boron zinc oxide, heptahydrate (=dodecaboron tetrazinc docosaoxide, heptahydrate) / dodecaboron tetrazinc docosaoxide, heptahydrate / Firebrake 500 / Firebrake ZB / hexaboron dizinc undecaoxide, heptahydrate / STORFLAM ZB2335 / Zinborel / ZINC BORATE / ZINC BORATE 2335	1-3	B6Zn2O11.7 H2O	CAS-No.: 138265-88-0 EC-No.: 235-804-2	Acute Tox. Not classified (Oral) Acute Tox. Not classified (Dermal) Repr. 2, H361 Aquatic Acute 1, H400 Aquatic Chronic 2, H411

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### SECTION 4: First-aid measures

#### 4.1. Description of necessary first aid measures

First-aid measures general	Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
Inhalation	Allow affected person to breathe fresh air. Allow the victim to rest.
Skin contact	Wash skin with plenty of water. If skin irritation occurs: Get medical advice/attention. Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash contaminated clothing before reuse.
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. Obtain medical attention if pain, blinking or redness persists.
Ingestion	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 an allergic skin reaction.
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#### 4.3. Indication of immediate medical attention and special treatment needed, if necessary

No additional information available

### SECTION 5: Fire-fighting measures

#### 5.1. Suitable extinguishing media

Suitable extinguishing media	Foam. Dry powder. Carbon dioxide. Water spray. 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	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

No additional information available

##### 6.1.1. For non-emergency personnel

Emergency procedures	Evacuate unnecessary personnel.
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##### 6.1.2. For emergency responders

Protective equipment	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

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	On land, sweep or shovel into suitable containers. Minimise generation of dust. Store away from other materials.
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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling

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. Avoid breathing dust/fume/gas/mist/vapours/spray.

Hygiene measures

Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

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

Storage conditions

Keep container closed when not in use.

Incompatible products

Strong bases. Strong acids.

Incompatible materials

Sources of ignition. Direct sunlight.

Storage temperature

5 – 30 °C

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters/Occupational exposure limits

No additional information available

#### 8.2. Appropriate engineering control measures

No additional information available

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

**Personal protective equipment:**

Protective clothing. Safety glasses. Gloves. Avoid all unnecessary exposure.

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:

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	>0,4		

Eye protection

Chemical goggles or safety glasses

Skin and body protection

Wear suitable protective clothing

Respiratory protection

No respiratory protection needed under normal use conditions

**Personal protective equipment symbol(s)**



### SECTION 9: Physical and chemical properties

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

Physical state

Solid

Appearance

Pasty.

Colour

white

Odour

characteristic

Odour threshold

Not determined

pH

7.5 – 9

Melting point

Not applicable

Freezing point

Not available

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Initial boiling point and boiling range	Not available
Flash point	Not applicable
Evaporation rate	Not available
Flammability	Not applicable, Non flammable.
Explosive limits	Not available
Vapour pressure	Not available
Relative vapour density at 20°C	Not available
Density	1.46 kg/l
Relative density	Not available
Solubility	Not available
Partition coefficient n-octanol/water (Log Kow)	Not available
Partition coefficient n-octanol/water (Log Pow)	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity, kinematic	Not available
Particle size	Not available
Particle size distribution	Not available
Particle shape	Not available
Particle aspect ratio	Not available
Particle specific surface area	Not available

### 9.2. Other information

Molecular mass	Not determined
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## 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. Acute toxicity

Acute toxicity (oral)	Not classified
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified

hexaboron dizinc undecaoxide, heptahydrate (138265-88-0)	
LD50 oral rat	> 5000 mg/kg bodyweight (FIFRA (40 CFR), Rat, Male / female, Experimental value of similar product, Oral, 14 day(s))
LD50 dermal rabbit	> 5000 mg/kg bodyweight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Experimental value of similar product, Dermal, 14 day(s))

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hexaboron dizinc undecaoxide, heptahydrate (138265-88-0)	
LC50 Inhalation - Rat	> 4.95 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Read-across, Inhalation (dust), 14 day(s))

Skin corrosion or irritation	Not classified pH: 7.5 – 9
Serious eye damage or irritation	Not classified
Respiratory or skin sensitisation	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Suspected of damaging fertility or the unborn child.
STOT-single exposure	Not classified
STOT-repeated exposure	Not classified
Aspiration hazard	Not classified

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Density	1.46 kg/l
Potential adverse human health effects and symptoms	Based on available data, the classification criteria are not met.

## 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.
Other information	Avoid release to the environment.

hexaboron dizinc undecaoxide, heptahydrate (138265-88-0)	
LC50 - Fish [1]	169 µg/l (ASTM E729-88, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Read-across)
EC50 - Crustacea [1]	155 – 413 µg/l (US EPA, 48 h, Ceriodaphnia dubia, Static system, Fresh water, Read-across)
BCF - Fish [1]	116 – 60960 (21 day(s), Semi-static system, Marine water, Read-across, Fresh weight)

### 12.2. Persistence and degradability

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Persistence and degradability	Not established.
hexaboron dizinc undecaoxide, heptahydrate (138265-88-0)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

### 12.3. Bioaccumulative potential

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Bioaccumulative potential	Not established.

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hexaboron dizinc undecaoxide, heptahydrate (138265-88-0)	
BCF - Fish [1]	116 – 60960 (21 day(s), Semi-static system, Marine water, Read-across, Fresh weight)
Bioaccumulative potential	High potential for bioaccumulation (BCF > 5000).

### 12.4. Mobility in soil

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Mobility in soil	No additional information available
hexaboron dizinc undecaoxide, heptahydrate (138265-88-0)	
Surface tension	Data waiving
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

Waste treatment methods	Dispose in a safe manner in accordance with local/national regulations.
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.

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID /

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

### 14.6. Special precautions for user

#### Overland transport

Not applicable

#### Transport by sea

Not applicable

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### Air transport

Not applicable

### Rail transport

Not applicable

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

Not applicable

## SECTION 15: Regulatory information

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

Regulation		Component / Mixture
Workplace Safety and Health Act & Workplace Safety and Health (General Provisions) Regulations	Not applicable	
Arms and Explosives Act		
Chemical Weapons Prohibition Act		
Environmental Protection and Management (Air Impurities) Regulations		
Environmental Protection and Management Act (Hazardous Substances)		
Environmental Public Health (Quality of Piped Drinking Water) Regulations		
Fire Safety Act/Fire Safety (Petroleum and Flammable Materials) Regulations		
Maritime and Port Authority of Singapore (Dangerous, Petroleum and Explosives) Regulations		
Misuse of Drugs Act		
Poisons Act		
Poisons Rules		
Hazardous waste (Control of export, import and transit) Act		
Strategic goods (Control) Act		

### 15.2. International regulations

No additional information available

### 15.3 Chemical inventory status

#### Regulatory reference

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

## SECTION 16: Other information

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Supersedes	30/3/2020



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### 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.

### Abbreviations and acronyms

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

TRGS - Technical Rules for Hazardous Substances

VOC - Volatile Organic Compounds

vPvB - Very Persistent and Very Bioaccumulative

WGK - Water Hazard Class

TLV - Threshold Limit Value

NOEC - No-Observed Effect Concentration

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)

CAS-No. - Chemical Abstract Service number

CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008

COD - Chemical oxygen demand (COD)

DMEL - Derived Minimal Effect level

DNEL - Derived-No Effect Level

EC-No. - European Community number

EC50 - Median effective concentration

ED - Endocrine disruptor

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

NOAEC - No-Observed Adverse Effect Concentration

NOAEL - No-Observed Adverse Effect Level

N.O.S. - Not Otherwise Specified

OECD - Organisation for Economic Co-operation and Development

OEL - Occupational Exposure Limit

PBT - Persistent Bioaccumulative Toxic

PNEC - Predicted No-Effect Concentration

REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006

RID - Regulations concerning the International Carriage of Dangerous Goods by Rail

SDS - Safety Data Sheet

STP - Sewage treatment plant

ThOD - Theoretical oxygen demand (ThOD)

TLM - Median Tolerance Limit

None.

### Other information

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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.