CFR-1; CF 100 R1

依据标准：GB/T 16483，GB/T 17519-2013

Version:21.0

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SECTION 1 Chemical product and company identification

Product identifier

Product form	Mixture
Product name	CFR-1; CF 100 R1
Product code	BU Fire Protection

Details of the supplier of the safety data sheet

喜利得（中国）商贸有限公司
上海市徐汇区龙华中
路600号绿地中心B座22层
200233 上海
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Department issuing data specification sheet
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Feldkircherstraße 100
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T +423 234 2111
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Emergency telephone number

Emergency number

Schweizerisches Toxikologisches Informationszentrum - 24h Service
+41 44 251 51 51 (international)
+86 21 6016 7320
800-820-2585 （免费热线）

Country	Organisation/Company	Address	Emergency number
China	chemical accident emergency consultation service hotline (24/7)		400-6267-911

SECTION 2: Hazards identification

Emergency overview

Treat symptomatically. Aerosol. Colourless. Avoid contact with hot surfaces. Heat. No

flames, no sparks. Eliminate all sources of ignition. Under normal conditions of storage and use, hazardous decomposition products should not be produced. Dust/Mist. characteristic. Extremely flammable aerosol. Pressurised container: May burst if heated. Extremely flammable aerosol. No dangerous reactions known under normal conditions of use. Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". Pressurised container: May burst if heated. Extremely flammable aerosol. Pressurised container: May burst if heated. Causes serious eye irritation. May cause drowsiness or dizziness.

GHS classification

Physical hazards	Aerosol, Category 1
Health hazards	Serious eye damage/eye irritation, Category 2
	Specific target organ toxicity — Single exposure, Category 3, Narcosis

Other hazards not mentioned above are Not applicable or No data is available.

GHS CN labelling

Hazard pictograms (GHS CN)

GHS02 GHS07

Signal word (GHS CN)	Danger
Hazard statements (GHS CN)	H222 - Extremely flammable aerosol. H229 - Pressurised container: May burst if heated. H319 - Causes serious eye irritation. H336 - May cause drowsiness or dizziness.
Precautionary statements (GHS CN)	P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking,P211 - Do not spray on an open flame or other ignition source,P251 - Do not pierce or burn, even after use,P261 - Avoid breathing spray,P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing,P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Additional information

SECTION 3: Composition/information on ingredients

Product form Mixture

Name	CAS-No.	Concentration (%)
ethyl acetate	141-78-6	25 - 40
Acetone	67-64-1	25 - 40
propan-2-ol; isopropyl alcohol; isopropanol	67-63-0	10 - 25

SECTION 4: First aid measures

Emergency

First-aid measures general	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/doctor if you feel unwell.
First-aid measures after skin contact	If skin irritation occurs: Get medical advice/attention. Wash skin with plenty of water.
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.

Most Important Symptoms/Effects

Symptoms/effects	May cause drowsiness or dizziness.
Symptoms/effects after eye contact	Eye irritation.

Personal Protection in First Aid and Measures

Notes for the doctor

Other medical advice or treatment	Treat symptomatically

SECTION 5 Fire fighting measures

Extinguishing media

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

Special hazard

Fire hazard	Extremely flammable aerosol.
Hazardous decomposition products in case of fire	Carbon dioxide Carbon monoxide Vapours may form explosive mixture with air
Explosion hazard	Pressurised container: May burst if heated.

Advice for firefighters and protective measures

Protection during firefighting	Do not attempt to take action without suitable protective equipment Self-contained breathing apparatus Complete protective clothing

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Emergency procedures	Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid breathing spray. Avoid contact with skin and eyes.

For emergency responders

Protective equipment	Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

Environmental precautions

Environmental precautions	Prevent entry to sewers and public waters

Methods and Equipment for Containment and Cleaning up

Prevention Measures for Secondary Accidents

Other information	Dispose of materials or solid residues at an authorized site

SECTION 7 Handling and storage

Handling

Precautions for safe handling	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Use only outdoors or in a well-ventilated area. Avoid breathing spray. Avoid contact with skin and eyes Wear personal protective equipment
Hygiene measures	Do not eat, drink or smoke when using this product. Always wash hands after handling the product

Storage

Storage conditions	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F. Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.

SECTION 8: Exposure controls / Personal protection equipment

Occupational Exposure Limits

No additional information available

Biological limit values

No additional information available

Monitoring methods

Appropriate engineering controls	Ensure good ventilation of the work station

Personal protective equipment

Personal protective equipment	Gloves Protective clothing Protective goggles
Environmental exposure controls	Avoid release to the environment.

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves.	Nitrile rubber (NBR).				EN 374.

Type	Use	Characteristics	Standard
Safety glasses.			EN 166, EN 171.

Skin and body protection	Wear suitable protective clothing
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment

Device	Filter type	Condition	Standard
	Filter AX (brown).		

SECTION 9 Physical and chemical properties

Physical state	Liquid
Appearance	Aerosol
Colour	Colourless
Odour	characteristic
Odour threshold (ppm)	No data available
Odour threshold (mg/m³)	No data available
pH	No data available
pH solution	No data available

Relative evaporation rate (butylacetate=1)	No data available
Relative evaporation rate (ether=1)	No data available
Evaporation rate	No data available
Other properties	No data available
Melting point	Not applicable
Freezing point	No data available
Boiling point	No data available
Flash point	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Flammability (solid, gas)	Extremely flammable aerosol.
Critical temperature	No data available
Vapour pressure	2500 - 2900 hPa at 20 °C
Vapour pressure at 50 °C	No data available
Critical pressure	No data available
Relative vapour density at 20 °C	No data available
Relative density	No data available
Relative density of saturated gas/air mixture	No data available
Density	0.74 - 0.76 g/cm³
Relative gas density	No data available
Solubility	No data available
Solubility in water	No data available
Solubility in ethanol	No data available
Solubility in ether	No data available
Solubility in acetone	No data available
Solubility in organic solvents	No data available
Log Pow	No data available
Log Kow	No data available
Explosive limits (g/m³)	No data available
Explosive limits (vol %)	No data available
Lower explosive limit (LEL)	No data available
Upper explosive limit (UEL)	No data available
Radioactive	No
Explosive properties	Pressurised container: May burst if heated.

SECTION 10: Stability and reactivity

Reactivity	Extremely flammable aerosol. Pressurised container: May burst if heated.
Chemical stability	Stable under normal conditions
Possibility of hazardous reactions	No dangerous reactions known under normal conditions of use

Conditions to avoid	Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced

SECTION 11: Toxicological information

Acute toxicity

Acute toxicity (oral)	No data available
Acute toxicity (dermal)	No data available
Acute toxicity (inhalation)	No data available

Acetone	
LD50 oral rat	5800 mg/kg (Equivalent or similar to OECD 401, Rat, Female, Experimental value, Oral)
LD50 dermal rabbit	20000 mg/kg (Equivalent or similar to OECD 402, Rabbit, Male, Experimental value, Dermal)
LC50 inhalation rat (mg/l)	76 mg/l (Other, 4 h, Rat, Female, Experimental value, Inhalation (vapours))
ATE CN (oral)	5800 mg/kg bodyweight
ATE CN (dermal)	20000 mg/kg bodyweight
ATE CN (vapours)	76 mg/l/4h
ATE CN (dust,mist)	76 mg/l/4h

ethyl acetate	
LD50 oral rat	10200 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Female, Experimental value, Oral)
LD50 dermal rabbit	> 20000 mg/kg bodyweight (24 hour cuff method, 24 h, Rabbit, Male, Experimental value, Dermal)
ATE CN (oral)	10200 mg/kg bodyweight

Skin corrosion/irritation

Skin corrosion/irritation	No data available

pH

Serious eye damage/irritation

Serious eye damage/irritation	Causes serious eye irritation.

Respiratory or skin sensitisation

Respiratory or skin sensitisation	No data available

Germ cell mutagenicity

Germ cell mutagenicity	No data available

Carcinogenicity

Carcinogenicity	No data available

Reproductive toxicity

Reproductive toxicity	No data available

STOT-single exposure

STOT-single exposure	May cause drowsiness or dizziness.

STOT-repeated exposure

STOT-repeated exposure	No data available

Aspiration hazard

Aspiration hazard	No data available

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Vaporizer	Aerosol
Human evidence for classification	No
Not able to form a pool	No
Hydrocarbon	No
Aliphatic, alicyclic or aromatic hydrocarbon	No
Polycyclic-aromatic hydrocarbons	No
Density	0.74 - 0.76 g/cm³

SECTION 12: Ecological information

Toxicity

Ecology - general	The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Acute aquatic toxicity	No data available
Chronic aquatic toxicity	No data available

Acetone	
LC50 fish 1	5540 mg/l (EU Method C.1, 96 h, Salmo gairdneri, Static system, Fresh water, Experimental value, Nominal concentration)
BCF fish 1	0.69 (Pisces)

BCF other aquatic organisms 1	3 (BCFWIN, Calculated value)

ethyl acetate	
LC50 fish 1	230 mg/l (US EPA, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value)
EC50 Daphnia 1	154 mg/l (48 h, Daphnia magna, Literature)
BCF fish 1	30 (3 day(s), Leuciscus idus, Static system, Experimental value)

Persistence and degradability

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Not rapidly degradable	No

propan-2-ol; isopropyl alcohol; isopropanol	
Not rapidly degradable	No

Acetone	
Not rapidly degradable	No
Persistence and degradability	Biodegradable in the soil Biodegradable in the soil under anaerobic conditions Readily biodegradable in water
Biochemical oxygen demand (BOD)	1.43 g O_2/g substance
Chemical oxygen demand (COD)	1.92 g O_2/g substance
ThOD	2.2 g O_2/g substance
BOD (% of ThOD)	0.872 (20 day(s), Literature study)

ethyl acetate	
Not rapidly degradable	No
Persistence and degradability	Biodegradable in the soil Readily biodegradable in water
Biochemical oxygen demand (BOD)	0.293 g O_2/g substance
Chemical oxygen demand (COD)	1.69 g O_2/g substance
ThOD	1.82 g O_2/g substance

Bioaccumulative potential

Acetone	
Bioaccumulative potential	Not bioaccumulative
BCF fish 1	See section 12.1 on ecotoxicology
BCF other aquatic organisms 1	See section 12.1 on ecotoxicology
Log Pow	-0.24 (Test data)

ethyl acetate	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500)
BCF fish 1	See section 12.1 on ecotoxicology
Log Pow	0.68 (Experimental value, EPA OPPTS 830.7560, 25 °C)

Mobility in soil

Acetone	
Ecology - soil	Not bioaccumulative
Surface tension	0.0237 N/m
Log Pow	-0.24 (Test data)

ethyl acetate	
Ecology - soil	Low potential for bioaccumulation (BCF < 500)
Surface tension	0.024 N/m (20 °C)
Log Pow	0.68 (Experimental value, EPA OPPTS 830.7560, 25 °C)

Other adverse effects

Classification procedure (Ozone): No data available

Results of PBT and vPvB assessment

SECTION 13: Disposal considerations

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

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	RID
14.1. UN number			
1950	1950	1950	1950
14.2. UN proper shipping name			
AEROSOLS	AEROSOLS	Aerosols, flammable	AEROSOLS
Transport document description			
UN 1950 AEROSOLS, 2.1, (D)	UN 1950 AEROSOLS, 2.1	UN 1950 Aerosols, flammable, 2.1	UN 1950 AEROSOLS, 2.1
14.3. Transport hazard class(es)			
2.1	2.1	2.1	2.1
			
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards			
Dangerous for the	Dangerous for the environment : No	Dangerous for the	Dangerous for the

ADR	IMDG	IATA	RID
environment : No	Marine pollutant : No	environment : No	environment : No
No supplementary information available			

Special precautions for user

- Overland transport

Classification code (ADR)	5F
Special provisions (ADR)	190, 327, 344, 625
Limited quantities (ADR)	1l
Packing instructions (ADR)	P207, LP02
Mixed packing provisions (ADR)	MP9
Transport category (ADR)	2
Tunnel restriction code (ADR)	D

- Transport by sea

Special provisions (IMDG)	63, 190, 277, 327, 344, 959
Limited quantities (IMDG)	SP277
Packing instructions (IMDG)	P207, LP02
EmS-No. (Fire)	F-D
EmS-No. (Spillage)	S-U
Stowage category (IMDG)	None
Stowage and segregation (IMDG)	Protected from sources of heat For AEROSOLS with a maximum capacity of 1 litre: Category A. Segregation as for class 9 but 'Separated from' class 1 except division 1.4. For AEROSOLS with a capacity above 1 litre: Category B. Segregation as for the appropriate sub-division of class 2. For WASTE AEROSOLS: Category C. Clear of living quarters. Segregation as for the appropriate sub-division of class 2.
MFAG-No	126

- Air transport

PCA packing instructions (IATA)	203
PCA max net quantity (IATA)	75kg
CAO packing instructions (IATA)	203
Special provisions (IATA)	A145, A167, A802

- Rail transport

Special provisions (RID)	190, 327, 344, 625
Limited quantities (RID)	1L
Packing instructions (RID)	P207, LP02
Carriage prohibited (RID)	No

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: Regulatory information

SECTION 16 Other information

Compiled according to GB/T 16483, GB/T 17519

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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