

SAFETY DATA SHEET

According to the REACH Regulations (EC) 1907/2006 amended by Regulation (EU) 2020/878



MSDS-001 CheckFire CO2 v2.0 – January 2025

SECTION 1: IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier.

Product form:	Gas
Product name:	Carbon Dioxide – See page 14 for applicable products.
Type of product:	Extinguishing agent
Product group:	Fire extinguisher

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

121 Relevant identified uses.

Main use category:	Industrial, professional, and residential.
Use of substance/ mixture:	Extinguishing agents.
Function or use category:	Fire extinguisher.

122 Uses advised against.

No additional information available.

1.3 Details of the supplier of the safety data sheet.

Supplier:	CheckFire Ltd.
Address:	Sir Alfred Owen Way Caerphilly, CF83 1NL, South Wales
Company telephone:	+44 (0) 2920 868 333 8am – 4:45pm EST Monday Friday
Website/ Email:	www.checkfire.co.uk sales@checkfire.co.uk
Dept Responsible for information:	Compliance

1.4 Emergency telephone number:

Emergency telephone number:	+44 (0) 2920 868 333 8am – 4:45pm UK Mon- Friday
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SECTION 2 : HAZARDS IDENTIFICATION:

2.1 Classification of substance or mixture Classification according to Regulation (EC) No. 1272/2008 (CLP)

Adverse physicochemical, human health and environmental effects.

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practices.

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2.2 Label elements

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

EUH-statements

Hazard Pictogram, Singal words:



Pictogram Code:

H280

Signal Word:

Warning – Contains gas under pressure

Hazard Statements	
Physical Hazards	Warning – Contains gas under pressure
Health Hazards	Does not meet the criteria for classification.
Environmental Hazards	Does not meet the criteria of classification as dangerous for the environment.
Combinations	None
Precautionary Statements	
General	P101 If medical advice is needed, have product container or label at hand
Prevention	P264: Wash hands thoroughly after handling P280: wear eye protection face protection.
Response	P305+P351+P338: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313: If eyes irritation persists: Get medical advice / attention.

2.3 Other hazards

The product does not contain any PBT, vPvB, SVHC or endocrine disruptors in percentage greater than 0.1% in accordance with REACHAnnex XIII.

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0.1%

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SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS:

3.1 Substances

Not applicable

3.2 Mixtures

Name	Product Identifier	Percentage	Classification according to Regulation (EC) No 1272/2008 (CLP)
Carbon Dioxide	CAS No. 124-38-9 EC No. 204-696-9	>99.8	Liq. Gas (H280)

This product does not contain substances classified as hazardous according to the European parliament and council regulation (EC) no 1272/2008 of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing directive 67/548/EEC and 1999/45/EC, amending regulation (EC) no 1907/2006 in the concentration ranges specified.

Section 16 stated the importance of H-phrases and symbols.

SECTION 4: FIRST AID MEASURES:

4.1 Description of first aid measures

First aid measures after inhalation:	Remove the victim to fresh air and keep comfortable for breathing. Consult a doctor/medical service if you feel unwell.
First aid measures after skin exposure:	Gently warm affected areas. Consult a doctor/medical professional if blistering or redness persists.
First aid measures after eye contact:	Wash immediately with plenty of water for at least 20 minutes, opening the eyelids fully. Consult an eye specialist.
First aid measures after Ingestion:	Seek medical advice if necessary.

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SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

No additional information available.

5.2 Special hazards arising from the substance or mixture.

The product is not flammable. Pressurized containers may explode if exposed to heat or fire.

5.3 Advice for fire fighters

Precautionary measures fire:

Evacuate area.

Firefighting instructions:

Keep containers cool as heat may cause the vessel to rupture or burst.

Protection during firefighting:

Do not attempt to act without suitable protective equipment. Self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment, and emergency procedures

General measures:

Do not handle until all safety precautions have been read and understood.

6.1.1 For non-emergency personnel

Protective equipment:

Wear appropriate personal protective equipment.

Emergency Procedures:

Ventilate area.

6.1.2 For emergency responders

Protective equipment:

Do not attempt to act without suitable protective equipment. Provide adequate ventilation. Avoid contact with eyes. For further information refer to section 8. "Exposure controls/ personal protection".

6.2 Environmental precautions

If it is safe to do so, close the cylinder valve and transport to the open air. Accumulations of invisible CO2 gas in low-lying areas such as pits, basements or sewers can be dangerous, and these areas should not be entered without suitable breathing equipment until pronounced safe to do so.

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6.3 Methods and materials for containment and cleaning up.

Method for cleaning up: Ventilate area.

Other information: None.

6.4 Reference to other sections

For further information refer to section 13

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Ensure good ventilation of the workstation. Wear personal protective equipment. Cylinders must only be handled by trained personnel. Do not lift or move the cylinder using the valve. Do not use force to open or close the valve. Cylinders must always be suitable for the gas(es) and must have the correct test and working pressure. Cylinders must be regularly inspected.

Hygiene measures: None

7.2 Conditions for safe storage, including any incompatibilities.

Technical measures: Comply with applicable regulations

Storage conditions: Store in a well-ventilated place. Keep cool.

Heat and ignition sources: Avoid high temperatures.

Storage area: Keep container in a well-ventilated place. Keep away from heat and direct sunlight.

Special rules on packaging: Store in accordance with local, regional, national, or international regulations. Keep only in original container.

Specific end uses (s):

No additional information available

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

8.1.1 National occupational exposure and biological limit values

ACGIH TLV: 5000ppm

STEL: 30000ppm

OSHA PEL: 5000ppm

STEL: 3000ppm

8.1.2 National occupational exposure and biological limit values

No additional information available

8.1.3 Recommended monitoring procedures

No additional information available

8.1.4 Air contaminants formed.

No additional information available

8.1.5 DNEL and PNEC

No additional information available

8.1.6 Control banding

No additional information available

8.2 Exposure Controls

Mandatory general regulations on occupational health. Do not allow to exceed the normative concentrations of hazardous constituents in the workplace.

8.2.1 Appropriate engineering controls

Appropriate engineering controls: Ensure good ventilation at the workstation.

8.2.2 Personal protective equipment

Personal protective equipment: Gloves. Protective clothing. Protective goggles.

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Personal protective equipment symbol(s).



8.2.2.1 Eye and face protection

Eye protection:

Chemical goggles or safety glasses.

Physical state			
Type	Field of application	Characteristics	Standard
Safety goggles, safety glasses		With side shields	EN 166

8.2.2.2 Skin protection

Skin and body protection:

Wear suitable protective clothing.

Hand protection:

Protective gloves.

Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves, Reusable gloves					EN ISO 374

Other skin protection:

Materials for protective clothing:

Wear personal protective equipment.

8.2.2.3 Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

8.2.2.4 Thermal hazards

May cause cold burns to skin if exposed to extinguishing medium.

8.2.3 Environmental exposure controls

No additional information available

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties – extinguishing agent

Physical state	Gas (@20°C)
Colour	Colourless
Odour	Odorless
Odour threshold	Not available
Melting point	-78.5°C
Freezing point	Not applicable
Boiling Point	-56.6°C
Flammability	Non-Flammable
Explosive limits	Not applicable
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Flash Point	Not applicable
Autoignition temperature	Not applicable
Decomposition temperature	Not applicable
pH	Not applicable
Kinematic viscosity	Not applicable
Dynamic viscosity	Not applicable
Solubility	Soluble
Partition coefficient n-octane/water (log Kow)	Not applicable
Vapour pressure	57.3 bar @ 20°C
Relative density, gas (air = 1)	1.52
Relative density, Liquid (Water = 1)	0.82

9.2 Other information

9.2.1 Information with regard to physical hazard classes:

No additional information available

9.2.2 Other safety characteristics

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SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

The product is stable in normal conditions.

10.2 Chemical stability

The product is stable in normal conditions.

10.3 Possibility of hazardous reactions

No dangerous reactions are known to occur under normal conditions of use.

10.4 Conditions to avoid

High Temperatures

10.5 Incompatible materials

No additional information available.

10.6 Hazardous decomposition products

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

SECTION 11: TOXICOLOGICAL INFORMATION

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

Acute toxicity (oral)	Not classified
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	100,000ppm/minute
Skin corrosion / irritation	Not classified
	Not classified
Serious eye damage / irritation	Not classified
	Not classified
Respiratory or skin sensitisation	Not classified
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

11.2 Information on other hazards

No additional Information available

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SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Not Specified.

12.2 Persistence and degradability

No additional information available.

12.3 Bio-accumulative potential

No additional information available.

12.4 Mobility in soil

No additional information available.

12.5 Results of PBT and vPvB assessment

No additional information available.

12.6 Endocrine disrupting properties

No additional information available.

12.7 Other adverse effects

No additional information available.

SECTION 13: DISPOSABLE INFORMATION

13.1 Water treatment methods

Regional legislation (waste):

Disposal must be done according to official regulations.

Waste treatment methods:

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

SECTION 14: TRANSPORT INFORMATION

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

14.1 UN number or ID number

UN-No. (ADR):

Not applicable

UN-No. (IMDG):

UN 1044

UN-No. (IATA):

Not applicable

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UN-No. (ADN): Not applicable
UN-No. (RID): Not applicable

14.2 UN proper shipping names

Proper shipping names. (ADR): Not applicable
Proper shipping names. (IMDG): Fire extinguishers with compressed or liquefied gas.
Proper shipping names. (IATA): Not applicable
Proper shipping names. (ADN): Not applicable
Proper shipping names. (RID): Not applicable

14.3 Transport hazard class(es)

ADR –Transport hazard class(es): Not applicable
IMDG –Transport hazard class(es): Not applicable
IATA–Transport hazard class(es): Not applicable
ADN –Transport hazard class(es): Not applicable
RID– Transport hazard class(es): Not applicable

14.4 Packing group

Packing group ADR: Not applicable
Packing group IMDG: Not applicable
Packing group IATA: Not applicable
Packing group ADN: Not applicable
Packing group RID: Not applicable

14.5 Environmental hazards

Dangerous for the environment: No
Marine pollutant: No
Other information: No supplementary information available

14.6 Special precautions for user

Overland transport: Not applicable

14.7 Maritime transport in bulk container to IMO instruments

Not applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, Health, and Environmental Regulations / Legislation Specific for the Substance or Mixture

15.1.1 EU Regulations

REACHAnnex XVII (Restrictions List) : Contains no substance(s) listed on REACHAnnex XVII (Restriction Conditions) **REACHAnnex XIV (Authorisations List)**: Contains no substance(s) listed on REACHAnnex XIV (Authorisations List)

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REACH Candidate List (SVHC): Contains no substance(s) listed on REACH Candidate List.

PIC Regulation List (Prior Informed Consent): Contains no substance(s) listed on PIC list (Regulation EU649/2012 concerning the export and import of hazardous chemicals).

POC Regulation List (Persistent Organic Pollutants): Contains no substance(s) listed on POPlist (Regulation EU2019/1021 concerning persistent organic pollutants).

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

Explosives Precursors Regulation (2019/1148): Contains no substance(s) listed on Explosives Precursors list (EU Regulation 2019/1148 concerning marketing and use of explosive precursors).

15.2 Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16 : OTHER INFORMATION

LEGEND / Abbreviations and acronyms)

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.		
BLV	Biological limit value.		
CASNo.	Chemical Abstract Service Number.		
CLP	Classification Labelling Packaging Regulation : Regulation (EC) No. 1272/2008.		
CE50	Effective Concentration (required to induce a 50% effect).		
CE No	Identifier in ESIS (European Archive of Existing Substances).		
DMEL	Derived-Minimal Effect Level.		
DNEL	Derived No Effect Level.		
EC50	Median effective concentration.		
EC-No.	European Community number.		
EN	European standard.		
EmS	Emergency Schedule.		
GHS	Globally Harmonised System of Classification and Labelling of Chemicals.		
IATA	International Air Transport Association Dangerous Goods Regulations.		
IMDG	International Maritime Code for Dangerous Goods.		
IMO	International Maritime Organization.		
LC50	Median Lethal Concentration.		
LD50	Median Lethal Dose.		
LOAEL	Lowest Observed Adverse Effect Level.		

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NOAEC	No Observed Adverse Effect Concentration.
OEL	Occupational Exposure Limit.
NOAEL	No Observed Adverse Effect Level.
NOEC	No Observed Effect Concentration.
PBT	Persistent Bio Accumulative Toxic.
PNEC	Predicted No Effect Concentration.
REACH	Registration, Evaluation, Authorization and Restriction of Chemicals Regulations (EC Regulation 1907/2006)
RID	Regulation Concerning the International Transport of Dangerous Goods by Rail.
SDS	Safety Data Sheet.
TLV	Threshold Limit Value
TLV Ceiling	Concentration that should not be exceeded during any time of occupational exposure.
TWASTEL	Short term exposure limit.
TWA	Time weighted average exposure limit.
VOC	Volatile organic compounds.
vPvB	Very Persistent and Very Bio Accumulative.
WGK	Water Hazard Class.
STOT	Specific Target Organ Toxicity.

Other Information

The information contained in the present sheet is based on our own knowledge and believed accurate and reliable. This information is based on 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. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

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This MSDS applies to the following products:

2025 Product code	Previous Code
FX-CO2-002-DCF	CO2E
N/A	CO2E-AM
N/A	CO2E-M
FX-COA-002-DCF	CO2EA
FX-CO2-005-DCF	CO5E
FX-COA-005-DCF	CO5EA
N/A	COEX2-AC
N/A	COEX2-PG
CX-CO2-002-DSS	COEX2P
CX-CO2-005-DSS	COEX5P
FX-CO2-002-ACF	N/A
FX-CO2-002-FCF	N/A
FX-CO2-005-ACF	N/A
FX-CO2-010-DCF	WFC10
WFC20	WFC20
WFC20/MED	WFC20/MED
WFC30	WFC30
RX-SQT-002-ECF	REN2-SQUAT
RX-BOX-002-ECF	REN2-SQUAT Boxed
RX-BWH-002-ECF	REN2-SQUAT Boxed c/w horn
RX-STE-002-ECF	REN2-STEEL
RX-STB-002-ECF	REN2-STEEL Boxed c/w horn
N/A	REN2-TALL
N/A	REN2-TALL Boxed c/w horn
RX-SQT-005-ECF	REN5
RX-BWH-005-ECF	REN5 Boxed c/w horn
RX-KMD-002-ECF	N/A
RX-KMD-005-ECF	N/A

END OF MSDS