



Safety Data Sheet

This safety data sheet complies with the requirements of: Regulation (EC) No. 1907/2006

Product name Carbon Dioxide

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier

Product code 015851
Product name Carbon Dioxide

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

Recommended use No information available

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Company Name
Tyco Fire Protection Products
One Stanton Street
Marinette, WI 54143-2542
Telephone: 715-735-7411

For further information, please contact

E-mail address psra@tycofp.com

1.4. Emergency telephone number

Emergency telephone - CHEMTREC 800-424-9300 or 703-527-3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008
Gases Under Pressure Compressed Gas - (H280)

2.2. Label Elements

Product Identifier



Signal Word
WARNING



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hazard statements

H280 - Contains gas under pressure; may explode if heated.
 EUH210 - Safety data sheet available on request

2.3. Other Hazards

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

2.4. Precautionary Statements

precautionary statements

P410 + P403 - Protect from sunlight. Store in a well-ventilated place.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not Applicable

3.2 Mixture

Chemical name	EC No	CAS No	weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
Carbon Dioxide	204-696-9	124-38-9	90 - 100%	Not classified	no data available

Full text of H- and EUH-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Remove to fresh air. If breathing is difficult, give oxygen. (Get medical attention immediately if symptoms occur.).
Skin contact	Wash skin with soap and water. Get medical attention if irritation develops and persists.
Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Ingestion	Rinse mouth. Do not induce vomiting without medical advice. If swallowed, call a poison control center or physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms Unconsciousness.

4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.



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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media

Product is extinguishing agent. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media

None

5.2. Special hazards arising from the substance or mixture

None known

Hazardous Combustion Products

Carbon oxides. Fluorinated oxides. Nitrogen oxides (NOx). Oxides of sulfur.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective suit. Use personal protective equipment as required.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation, especially in confined areas.

Use personal protection recommended in Section 8.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas. See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for Containment

Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up

Pick up and transfer to properly labeled containers.

6.4. Reference to other sections

See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Avoid contact with skin and eyes. Handle in accordance with good industrial hygiene and safety practice.

General hygiene considerations

Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities



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Storage Conditions

Keep containers tightly closed in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

Specific Use(s)

Fire extinguishing agent.

Risk Management Methods (RMM)

The information required is contained in this Material Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits

Chemical name	European Union	United Kingdom	France	Spain	Germany
Carbon Dioxide 124-38-9	TWA: 5000 ppm TWA: 9000 mg/m ³	STEL: 15000 ppm STEL: 27400 mg/m ³ TWA: 5000 ppm TWA: 9150 mg/m ³	TWA: 5000 ppm TWA: 9000 mg/m ³	TWA: 5000 ppm TWA: 9150 mg/m ³	TWA: 5000 ppm TWA: 9100 mg/m ³ Ceiling / Peak: 10000 ppm Ceiling / Peak: 18200 mg/m ³
Chemical name	Italy	Portugal	Netherlands	Finland	Denmark
Carbon Dioxide 124-38-9	TWA: 5000 ppm TWA: 9000 mg/m ³	STEL: 30000 ppm TWA: 5000 ppm TWA: 9000 mg/m ³	TWA: 9000 mg/m ³	TWA: 5000 ppm TWA: 9100 mg/m ³	TWA: 5000 ppm TWA: 9000 mg/m ³
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
Carbon Dioxide 124-38-9	STEL 10000 ppm STEL 18000 mg/m ³ TWA: 5000 ppm TWA: 9000 mg/m ³	TWA: 5000 ppm TWA: 9000 mg/m ³	STEL: 27000 mg/m ³ TWA: 9000 mg/m ³	TWA: 5000 ppm TWA: 9000 mg/m ³ STEL: 5000 ppm STEL: 9000 mg/m ³	TWA: 5000 ppm TWA: 9000 mg/m ³

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering controls

Showers
 Eyewash stations
 Ventilation systems.

Personal Protective Equipment

Eye/Face Protection

Avoid contact with eyes. Tight sealing safety goggles.

Skin and Body Protection

Suitable protective clothing.

Environmental exposure controls

No information available.



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical State	Compressed Gas	Color	Colorless
Odor	None		
odor threshold	No data available		

<u>Property</u>	<u>VALUES</u>	<u>Remarks • Method</u>
pH		No data available
Melting point/freezing point		No data available
Boiling point / boiling range	-1.4 °C	No data available
Flash Point		No data available
Evaporation Rate		No data available
flammability (solid, gas)		No data available
Flammability limit in air		
Upper flammability limit:		No data available
Lower flammability limit:		No data available
Vapor Pressure		No data available
Vapor Density		No data available
Specific gravity		No data available
Water Solubility		No data available
solubility(ies)		No data available
Partition coefficient		No data available
Autoignition Temperature		No data available
Decomposition Temperature		No data available
Kinematic viscosity		No data available
Dynamic viscosity		No data available
Explosive Properties	No data available	
Oxidizing Properties	No data available	

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

Stable under recommended storage conditions.

Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	None.

10.3. Possibility of hazardous reactions

hazardous polymerization

Hazardous polymerization does not occur.

None under normal processing.

10.4. Conditions to avoid

Extremes of temperature and direct sunlight.

10.5. Incompatible materials



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Strong oxidizing agents. Strong acids. Strong bases.

10.6. Hazardous decomposition products

Carbon oxides. Nitrogen oxides (NOx). Oxides of sulfur. Fluorinated oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute Toxicity

Product information

Product does not present an acute toxicity hazard based on known or supplied information.

INHALATION

In high concentration the gas may cause a suffocation. Victim may not be aware of asphyxiation. In confined or poorly ventilated areas, vapors can readily accumulate and can cause unconsciousness and death.

Eye Contact

None known.

Skin contact

None known.

INGESTION

Not an expected route of exposure.

Unknown Acute Toxicity

Unknown Acute Toxicity

100% of the mixture consists of ingredient(s) of unknown toxicity.

Skin Corrosion/Irritation

No information available.

Serious eye damage/eye irritation sensitization

No information available.

Germ Cell Mutagenicity

No information available.

carcinogenicity

No information available.

Reproductive Toxicity

Lack of oxygen during pregnancy has produced developmental abnormalities in humans and experimental animals.

STOT - Single Exposure

No information available.

STOT - Repeated Exposure

No information available.

Symptoms

Unconsciousness.

Aspiration Hazard

No information available.

SECTION 12: Ecological information

12.1. Toxicity

12.2. Persistence and degradability



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No information available.

12.3. Bioaccumulative potential

No information available.

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

12.6. Other adverse effects

No information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from Residues/Unused Products Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging Do not reuse container.

SECTION 14: Transport information

IMDG

14.1 UN/ID no UN1013
 14.2 Proper Shipping Name Carbon dioxide
 14.3 Hazard class 2.2
 14.4 Packing group NOT REGULATED
 Description UN1013, Carbon dioxide, 2.2
 14.5 Marine Pollutant Not Applicable
 14.6 Special Provisions None
 EmS-No F-C, S-V
 14.7 Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC CODE No information available

RID

14.1 UN/ID no UN1013
 14.2 Proper Shipping Name Carbon dioxide
 14.3 Hazard class 2.2
 Labels 2.2 (+13)
 14.4 Packing group NOT REGULATED
 Description UN1013, Carbon dioxide, 2.2 (13)
 14.5 Environmental Hazard Classification Code Not Applicable
 2A



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14.6 Special Provisions	None
ADR	
14.1 UN/ID no	UN1013
14.2 Proper Shipping Name	Carbon dioxide
14.3 Hazard class	2.2
Labels	2.2
14.4 Packing group	NOT REGULATED
Description	UN1013, Carbon dioxide, 2.2, (C/E)
14.5 Environmental Hazard	Not Applicable
14.6 Special Provisions	None
Classification Code	2A
Tunnel restriction code	(C/E)

ICAO (air)	
14.1 UN/ID no	UN1013
14.2 Proper Shipping Name	Carbon dioxide
14.3 Hazard class	2.2
14.4 Packing group	NOT REGULATED
Description	UN1013, Carbon dioxide, 2.2
14.5 Environmental Hazard	Not Applicable
14.6 Special Provisions	None

IATA	
14.1 UN/ID no	UN1013
14.2 Proper Shipping Name	Carbon dioxide
14.3 Hazard class	2.2
14.4 Packing group	NOT REGULATED
Description	UN1013, Carbon dioxide, 2.2
14.5 Environmental Hazard	Not Applicable
14.6 Special Provisions	None
ERG Code	2L

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Germany
 Water hazard class (WGK) Not defined

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Authorizations and/or restrictions on use:
 This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants
 Not Applicable



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Ozone-depleting substances (ODS) regulation (EC) 1005/2009 Not Applicable

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
 EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
 ENCS - Japan Existing and New Chemical Substances
 IECSC - China Inventory of Existing Chemical Substances
 KECL - Korean Existing and Evaluated Chemical Substances
 PICCS - Philippines Inventory of Chemicals and Chemical Substances
 AICS - Australian Inventory of Chemical Substances

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend

SVHC: Substances of Very High Concern for Authorization:

Legend SECTION 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Revision date 25-May-2015

Revision note Not Applicable.

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet