



## Safety Data Sheet

This safety data sheet complies with the requirements of: 2012 OSHA Hazard Communication Standard ( 29CFR 1910.1200)

**Product name** Carbon Dioxide

### 1. Identification

#### 1.1. Product Identifier

**Product name** Carbon Dioxide

#### 1.2. Other means of identification

**Product code** 009163  
**UN/ID no** UN1013  
**Synonyms** None  
**Chemical Family** No information available

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

**Recommended use** No information available.  
**Uses advised against** Consumer use.

#### 1.4. 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  
**Contact point** Product Stewardship at 1-715-735-7411  
**E-mail address** psra@tycofp.com

#### 1.5. Emergency Telephone Number

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

### 2. Hazards Identification

#### Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Gases Under Pressure - Compressed Gas  
Simple asphyxiants - Yes

#### 2.2. Label Elements

##### Signal Word

WARNING

##### Hazard Statements

Contains gas under pressure; may explode if heated  
May displace oxygen and cause rapid suffocation





## Precautionary Statements

### Storage

Protect from sunlight. Store in a well-ventilated place.

### 2.3. Hazards Not Otherwise Classified (HNOC)

Simple asphyxiants.

### 2.4. Other Information

Unknown Acute Toxicity 100% of the mixture consists of ingredient(s) of unknown toxicity

## 3. Composition/information on Ingredients

### 3.1. Mixture

The following component(s) in this product are considered hazardous under applicable OSHA(USA)

Chemical name	CAS No.	weight-%
Carbon Dioxide	124-38-9	60 - 100

## 4. First aid measures

### 4.1. Description of first aid measures

<b>Eye Contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Skin contact</b>	Wash skin with soap and water. Get medical attention if irritation develops and persists.
<b>Inhalation</b>	Remove to fresh air. If breathing is difficult, give oxygen. (Get medical attention immediately if symptoms occur.)
<b>Ingestion</b>	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.

## 5. Fire-fighting measures

### 5.1. Suitable Extinguishing Media

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

### 5.2. Unsuitable Extinguishing Media

None.

**5.3. Specific Hazards Arising from the Chemical**

None known.

**Hazardous Combustion Products**

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

**5.4. Explosion Data****Sensitivity to Mechanical Impact** None.**Sensitivity to Static Discharge** None.**5.5. Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**6. Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****Personal Precautions**

Ensure adequate ventilation, especially in confined areas.

**For emergency responders**

Use personal protection recommended in Section 8.

**6.2. Environmental Precautions****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.

**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.

**7.2. Conditions for safe storage, including any incompatibilities****Storage Conditions**

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

**Incompatible Materials**

Strong oxidizing agents. Strong acids. Strong bases.

**8. Exposure Controls/Personal Protection****8.1. Control Parameters****Exposure guidelines**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH	Mexico OEL
Carbon Dioxide 124-38-9	STEL: 30000 ppm TWA: 5000 ppm	-	IDLH: 40000 ppm TWA: 5000 ppm	TWA 5000 ppm (VLE-PPT) TWA 9000 mg/m <sup>3</sup>



			TWA: 9000 mg/m <sup>3</sup> STEL: 30000 ppm STEL: 54000 mg/m <sup>3</sup>	(VLE-PPT) STEL 15000 ppm(PPT-CT) STEL 27000 mg/m <sup>3</sup> (PPT-CT)
--	--	--	---	--

ACGIH (American Conference of Governmental Industrial Hygienists) OSHA (Occupational Safety and Health Administration of the US Department of Labor) NIOSH IDLH Immediately Dangerous to Life or Health

**8.2. Appropriate Engineering Controls**

**Engineering controls** Ensure adequate ventilation, especially in confined areas.

**8.3. Individual protection measures, such as personal protective equipment**

**Eye/Face Protection** Avoid contact with eyes. Tight sealing safety goggles.

**Skin and Body Protection** Wear protective gloves and protective clothing.

**Respiratory Protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**Ventilation** Use local exhaust or general dilution ventilation to control exposure with applicable limits

**8.4. General hygiene considerations**

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

**9. Physical and Chemical Properties**

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

<b>Physical State</b>	Compressed Gas	<b>Color</b>	Colorless
<b>Odor</b>	None		
<b>Odor Threshold</b>	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 / 28 °F	
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 in Other Solvents	No data available	
Partition coefficient	No data available	
Autoignition Temperature	No data available	
Decomposition Temperature	No data available	
Kinematic viscosity	No data available	



**10. Stability and Reactivity**

**10.1. Chemical Stability**

Stable under recommended storage conditions.

**10.2. Reactivity**

No data available

**10.3. Possibility of hazardous reactions**

None under normal processing.

**Hazardous Polymerization** Hazardous polymerization does not occur.

**10.4. Conditions to Avoid**

Extremes of temperature and direct sunlight.

**10.5. Incompatible Materials**

Strong oxidizing agents. Strong acids. Strong bases.

**10.6. Hazardous decomposition products**

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

**11. Toxicological Information**

**11.1. Information on Likely Routes of Exposure**

**Product information**

<b>Inhalation</b>	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.
<b>Eye Contact</b>	None known.
<b>Skin contact</b>	None known.
<b>Ingestion</b>	Not an expected route of exposure.

**Acute Toxicity**

**11.2. Information on Toxicological Effects**

**Symptoms** Unconsciousness.

**11.3. Delayed and immediate effects as well as chronic effects from short and long-term exposure**

<b>Skin Corrosion/Irritation</b>	No information available.
<b>Serious eye damage/eye irritation</b>	No information available.
<b>Sensitization</b>	No information available.
<b>Germ Cell Mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	No information available.



<b>Reproductive Toxicity</b>	Lack of oxygen during pregnancy has produced developmental abnormalities in humans and experimental animals.
<b>STOT - Single Exposure</b>	No information available.
<b>STOT - Repeated Exposure</b>	No information available.
<b>Target organ effects</b>	Respiratory System, Central Vascular System (CVS).
<b>Aspiration Hazard</b>	No information available.

#### 11.4. Numerical Measures of Toxicity - Product information

The following values are calculated based on chapter 3.1 of the GHS document

### **12. Ecological Information**

#### 12.1. Ecotoxicity

The environmental impact of this product has not been fully investigated.

100% of the mixture consists of component(s) of unknown hazards to the aquatic environment

#### 12.2. Persistence and Degradability

No information available.

#### 12.3. Bioaccumulation

No information available.

#### 12.4. Other Adverse Effects

No information available

### **13. Disposal Considerations**

#### 13.1. Waste Treatment Methods

**Disposal of wastes** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated Packaging** Do not reuse container.

### **14. Transport Information**

#### DOT

<b>UN/ID no</b>	UN1013
<b>Description</b>	UN1013, Carbon dioxide, 2.2
<b>Proper Shipping Name</b>	Carbon dioxide
<b>Hazard class</b>	2.2
<b>Emergency Response Guide Number</b>	120

#### TDG

<b>UN/ID no</b>	UN1013
<b>Description</b>	UN1013, Carbon dioxide, 2.2
<b>Proper Shipping Name</b>	Carbon dioxide
<b>Hazard class</b>	2.2

**MEX**

UN/ID no	UN1013
Description	UN1013, Carbon dioxide, 2.2
Proper Shipping Name	Carbon dioxide
Hazard class	2.2

**ICAO (air)**

UN/ID no	UN1013
Description	UN1013, Carbon dioxide, 2.2
Proper Shipping Name	Carbon dioxide
Hazard class	2.2

**IATA**

UN/ID no	UN1013
Description	UN1013, Carbon dioxide, 2.2
Proper Shipping Name	Carbon dioxide
Hazard class	2.2
ERG Code	2L

**IMDG**

UN/ID no	UN1013
Description	UN1013, Carbon dioxide, 2.2
Proper Shipping Name	Carbon dioxide
Hazard class	2.2
EmS-No	F-C, S-V

**15. Regulatory Information****15.1. International Inventories**

TSCA	Complies
DSL/NDSL	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  
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. US Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

**SARA 311/312 Hazard Categories**

Acute Health Hazard	No
Chronic health hazard	No
Fire Hazard	No



Product code 009163

/ Product name Carbon Dioxide /

PAGE 8 / 8

Sudden Release of Pressure Hazard  
Reactive Hazard

Yes  
No

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

**15.3. US State Regulations**

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
Carbon Dioxide 124-38-9	X	X	X

**16. Other information, including date of preparation of the last revision**

<b>NFPA</b>	Health Hazards 1	Flammability 0	Instability 0	<b>Physical and chemical properties</b> Simple asphyxiants <b>Personal Protection</b> X
<b>HMIS</b>	Health Hazards 1	Flammability 0	Physical Hazards 3	

Revision date 13-Jun-2017

Revision note No information available.

**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