

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

1.1. Product identifier

Product name. : CO2 Cartridges
Product code : 143-05
Other means of identification : Carbon Dioxide Gas

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

Use of the substance/preparation : Laboratory Reagent

1.3. Details of the supplier of the safety data sheet

OFI Testing Equipment, Inc.
11302 Steeplecrest Dr.
Houston, TX 77065
T 832-320-7300

1.4. Emergency telephone number

Emergency number : 1-800-535-5053 / Outside USA and Canada: 1-352-323-3500 INFOTRAC

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Compressed gas H280

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) : Warning

Hazard statements (GHS-US) : H280 - Contains gas under pressure; may explode if heated

Precautionary statements (GHS-US) : P410+P403 - Protect from sunlight. Store in a well-ventilated place

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

CO2 Cartridges

Safety Data Sheet

3.2. Mixtures

Name	Product identifier	%	GHS-US classification
Carbon dioxide	(CAS No.) 124-38-9	> 99	Not classified

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : Remove person to fresh air. If not breathing, administer CPR or artificial respiration. Get immediate medical attention.
- First-aid measures after skin contact : If frostbite occurs, flust affected areas with lukewarm water. Do not use hot water. Get medical attention.
- First-aid measures after eye contact : No specific first aid measures are required.
- First-aid measures after ingestion : No specific first aid measures are required.

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

- Symptoms/injuries after inhalation : May cause rapid respiration, muscular incoordination, fatigue, nausea, vomiting and unconsciousness. At concentrations between 2 and 10%, Carbon Dioxide can cause nausea, dizziness, headache, mental confusion, increased blood pressure and respiratory rate. Above 8% nausea and vomiting appear. Above 10%, suffocation and death can occur within minutes.
- Symptoms/injuries after skin contact : Contact with the cold gas can cause freezing of exposed tissue.
- Symptoms/injuries after eye contact : Moisture in the air can lead to formation of carbonic acid that can irritate the eyes.
- Symptoms/injuries after ingestion : Not an expected route of entry during normal product handling.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Use appropriate extinguishing agent for surrounding fire. Keep cartridges cool with water spray.
- Unsuitable extinguishing media : None.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : None known.
- Explosion hazard : None known. Cartridge rupture may occur under fire conditions.
- Reactivity : None.

5.3. Advice for firefighters

- Protection during firefighting : Firefighters should wear full protective gear.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

CO2 Cartridges

Safety Data Sheet

6.2. Environmental precautions

None.

6.3. Methods and material for containment and cleaning up

For containment : Ventilate area of leak or spill. Shut off source if possible and remove sources of heat.

Methods for cleaning up : Remove leaking cylinder to exhaust hood or safe outdoor area if this can be done safely.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Protect containers from physical damage. Do not deface cylinders or labels. Cylinders should be refilled by qualified producers of compressed gas.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in well ventilated areas and away from heat.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Carbon dioxide (124-38-9)		
USA ACGIH	ACGIH TWA (ppm)	5000 ppm
USA ACGIH	ACGIH STEL (ppm)	30000 ppm
USA OSHA	OSHA PEL (TWA) (mg/m ³)	9000 mg/m ³
USA OSHA	OSHA PEL (TWA) (ppm)	5000 ppm

8.2. Exposure controls

Appropriate engineering controls : Local exhaust and general ventilation must be adequate to meet exposure standards.

Hand protection : Use loose fitting gloves of impermeable material such as leather, when working with cold liquid, solid or vapor.

Eye protection : Safety glasses.

Skin and body protection : Wear suitable working clothes.

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Gas

Colour : Colorless

Odour : Odorless

Odour threshold : No data available

pH : No data available

Relative evaporation rate (butylacetate=1) : No data available

CO2 Cartridges

Safety Data Sheet

Melting point	: No data available
Freezing point	: No data available
Boiling point	: 109.3 °C (Sublimes)
Flash point	: No data available
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: 816 psig @ 20 °C
Vapor density	: 1.53
Relative density	: No data available
Solubility	: Water: 87.8 @ 68 °F (v/v)
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

None.

10.2. Chemical stability

The product is stable at normal handling- and storage conditions.

10.3. Possibility of hazardous reactions

None.

10.4. Conditions to avoid

Temperatures above 3,092 °F (1,700°C).

10.5. Incompatible materials

Will react with alkaline materials to form carbonates and bicarbonates.

10.6. Hazardous decomposition products

Carbon monoxide may be evolved during combustion.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified

CO2 Cartridges

Safety Data Sheet

Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Carbon dioxide (124-38-9)	
BCF fish 1	(no bioaccumulation)

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose of contents/container in accordance with local/regional/national/international regulations.

Additional information : Dispose of non-refillable cylinders in accordance with Federal, State and Local Regulations. Allow gas to vent slowly to atmosphere in an unconfined area or exhaust hood. If the cylinders are the refillable type, return cylinders to supplier with any valve outlet plugs or caps secured and valve protection caps in place.

SECTION 14: Transport information

In accordance with DOT ADR / RID / ADNR / IMDG / ICAO / IATA

14.1. UN number

UN-No.(DOT) : 1013
DOT NA no. UN1013

14.2. UN proper shipping name

DOT Proper Shipping Name : Carbon dioxide
Department of Transportation (DOT) Hazard Classes : 2.2 - Class 2.2 - Non-flammable compressed gas 49 CFR 173.115

CO2 Cartridges

Safety Data Sheet

Hazard labels (DOT) : 2.2 - Non-flammable compressed gas



DOT Packaging Exceptions (49 CFR 173.xxx) : 306

DOT Packaging Non Bulk (49 CFR 173.xxx) : 302;304

DOT Packaging Bulk (49 CFR 173.xxx) : 302;314;315

SECTION 15: Regulatory information

15.1. US Federal regulations

Carbon dioxide (124-38-9)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.3. US State regulations

Carbon dioxide (124-38-9)

U.S. - Massachusetts - Right To Know List

U.S. - New Jersey - Right to Know Hazardous Substance List

U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

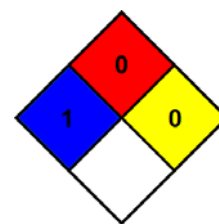
Full text of H-phrases: see section 16:

Compressed gas	Gases under pressure compressed gas
H280	Contains gas under pressure; may explode if heated

NFPA health hazard : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

NFPA fire hazard : 0 - Materials that will not burn.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



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.

SDS US (GHS HazCom 2012)