SAFETY DATA SHEET

DATE: JULY 14, 2020

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name Inflatable Life Preservers, Life Vests, Life Jackets, Individual Flotation Devices, Personal Flotation Devices.

Trade Names

Model	Part No.	Model	Part No.	Model	Part No.
GA-12	P0201-( )	KSD-35L8	P0723-( )	Triumph Sportsman	P01049-( )
CHD-25L8	P0620-( )	KSE-35L8	P0723E( )	Triumph II *	P01080-( )
IN-V20L8	P0640-( )	Triumph I *	P01037-( )	Pronto *	P01130-( )
XF-35	P01074-( )	Bravo	P01190-( )	KSD-35-( )	P0723-( )-( )
UXF-35	P01202-( )	Titan-XF	P01253-( )	AIC-35	P01400-( )

* Water activated inflation available on these models only.

Company Eastern Aero Marine
5502 NW 37th Avenue
Miami, Florida 33142

Telephone (800) 255-3924

Fax (305) 637-8632

Emergency Phone Number (813) 248-0585

2. HAZARDS IDENTIFICATION

- Carbon Dioxide, Compressed

Symbol(s) or pictogram(s) Refer to supplier's Safety Data Sheets for specific information on component.

Hazard statement(s) Refer to supplier's Safety Data Sheets for specific information on component.

Precautionary statement(s) Refer to supplier's Safety Data Sheets for specific information on component.

Hazards not otherwise classified Refer to supplier's Safety Data Sheets for specific information on component.

3. COMPOSITION/INFORMATION ON INGREDIENTS

N/A. Refer to supplier's Safety Data Sheets for specific information on component.

4. FIRST AID MEASURES

Inhalation Provide patient with fresh air and seek medical advice.

Skin Contact Refer to supplier's Safety Data Sheets for specific information on component.

Eye Contact Irrigate thoroughly with water and seek medical advice.

Ingestion Get medical aid immediately.

5. FIREFIGHTING MEASURES

Suitable Extinguishing Media Large volumes of water. Chemical fire extinguisher. Sand.

Specific Hazards From Combustion Refer to supplier's Safety Data Sheets for specific information on component.

Personal Protection Use air-ventilated full mask and full protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Hazardous materials are contained in sealed units within the life vest. Spills should pose no threat if sealed units are not breached. If compressed gas cylinder may discharge or rupture, ventilate the area. Refer to supplier's Safety Data Sheets for specific information on component.

7. HANDLING AND STORAGE

Handle the life vest with care. These units should be stored in a cool and dry area away from danger of sparks, heat or flame. Do not pull the inflation tab on the vest. Opening the package and unpacking the vest may cause it to inflate. Life vest can cause injury if inflated close to people or in a confined area. Prolonged exposure to moisture may cause water activated lights on some vests to discharge and give off a non-hazardous "rotten egg" smell. Fully ventilate the area. On vest models equipped with water activated inflation systems, prolonged exposure to moisture can cause the vest to inflate by itself. Refer to supplier's Safety Data Sheets for specific information on component.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

N/A. Refer to supplier's Safety Data Sheets for specific information on component.

9. PHYSICAL AND CHEMICAL PROPERTIES

Refer to supplier's Safety Data Sheets for specific information on component.

10. STABILITY AND REACTIVITY

The life vest is stable if stored in the original package in cool and dry conditions. Do not subject life vest to high temperatures or excessively humid conditions. Refer to supplier's Safety Data Sheets for specific information on component.

11. TOXICOLOGICAL INFORMATION

N/A. Refer to supplier's Safety Data Sheets for specific information on component.

12. ECOLOGICAL INFORMATION

N/A. Refer to supplier's Safety Data Sheets for specific information on component.

13. DISPOSAL CONSIDERATIONS

Refer to supplier's Safety Data Sheets for specific disposal information of component. Other solid contents may be disposed of as domestic waste in accordance with local laws and regulations.

14. TRANSPORT INFORMATION

	Max Gross Weight ≤ 40Kg	Max Gross Weight > 40Kg
UN Number	N/A	UN2990. Declare as Dangerous Goods.
UN Proper Shipping Name	Life Saving Appliance, Self-Inflating	
Transport Hazard Class(es)	N/A	Class 9
Packing Group	N/A	
Other	Reference IATA packing instructions 955.	

15. REGULATORY INFORMATION

N/A. Refer to supplier's Safety Data Sheets for specific information on components.

16. OTHER INFORMATION

Revision Level	Original
Other	Supplier's Safety Data Sheets can be found on our website at www.eamworldwide.com/technical-data/

1. Identification

Product Identifiner	:	Carbon Dioxide
Other means of identification	:	Carbonic, Carbon Dioxide, Carbonic Anhydride, CO2, UN 1013
Product use	:	Synthetic, Analytical chemistry
Supplier	:	Leland Limited, Inc. 2614 South Clinton Ave. South Plainfield, NJ 07080 1-908-668-1008 (9-5 EST)
Emergency calls		
Hazmat Service Inc.	:	1-800-373-7542 (Domestic)
Contract #1264	:	1-484-951-2432 (International)

2. Hazards Identification

OSHA/HCS status	:	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910. 1200).
Classification of the substance or mixture	:	Gases under pressure – Liquefied gas Simple asphyxiant
GHS label elements		
Hazard pictograms	:	
Signal word	:	Warning
Hazards statements	:	Contains gas under pressure; may explode if heated May displace oxygen and cause rapid suffocation
Precautionary statements		
General	:	Read and follow all Safety Data Sheets (SDS'S) before use. Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand. Close valve after each use and when empty. Use equipment rated for cylinder pressure. Do not open valve until connected to equipment prepared for use. Use a back flow preventative device in the piping. Use only equipment of compatible materials of construction. Always keep container in upright position.
Prevention	:	Use and store outdoors or in a well ventilated place.
Response	:	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Storage	:	Protect from sunlight. Protect from sunlight when ambient temperature exceeds 52C/125F. Store in a well-ventilated place.
Disposal	:	Dispose in accordance with all applicable regulations.
Hazards not otherwise classified	:	In addition to any other important health or physical hazards, this product may displace oxygen and cause rapid suffocation. May cause frostbite.

3. Composition, Information on Ingredients

Substance/Mixture	:	Substance
Chemical Name	:	Carbon dioxide
Synonyms	:	Carbonic, Carbon Dioxide, Carbon Anhydride, CO2
CAS Number	:	124-38-9
Content (vo%)	:	99.5 % or more

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

4. First Aid Measures

Description of necessary first aid measures

Inhalation	:	Remove exposed person to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular, or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin Contact	:	Carbon dioxide is harmless at atmospheric pressure. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Eye Contact	:	Carbon dioxide is harmless at atmospheric pressure. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
Ingestion	:	Since this product is a gas, refer to the inhalation section.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Inhalation	:	No known significant effects or critical hazards.
Skin Contact	:	No known significant effects or critical hazards.
Eye Contact	:	No known significant effects or critical hazards.
Frostbite	:	Try to warm up the frozen tissues and seek medical attention.
Ingestion	:	As this product is a gas, refer to the inhalation section.

Over-exposure signs/symptoms

Inhalation	:	No specific data.
Skin Contact	:	No specific data.
Eye Contact	:	No specific data.
Ingestion	:	No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	:	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	:	No specific treatment.
Protection of first-aiders	:	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

5. Fire Fighting Measures

Extinguishing media

Suitable extinguishing media	:	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	:	None known.
Specific hazards arising from the chemical	:	Contains gas under pressure. In a fire or if heated, a pressure increase will occur and the container may burst or explode.
Hazardous thermal decomposition products	:	Decomposition products may include the following materials: Carbon dioxide Carbon monoxide
Special protective actions for fire-fighters	:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Contact supplier immediately for specialist advice. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters		Fire-fighters should wear appropriate equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Avoid breathing gas. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	:	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in “For non-emergency personnel”.
Environmental precautions	:	Ensure emergency procedures to deal with accidental gas releases are in place to avoid contamination of the environment. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill	:	Immediately contact emergency personnel. Stop leak if without risk.

Large spill : Immediately contact emergency personnel. Stop leak if without risk. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

7. Handling and Storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Contains gas under pressure. Avoid contact with eyes, skin and clothing. Avoid breathing gas. Empty containers retain product residue and can be hazardous. Do not puncture or incinerate container. Use equipment rated for cylinder pressure. Close valve after each use and when empty. Protect cylinders from physical damage; do not drag, roll, slide, or drop. Use a suitable hand truck for cylinder movement.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Keep container tightly closed and sealed until ready for use. Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Cylinder temperatures should not exceed 52C (125F).

8. Exposure Controls and Personal Protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Carbon Dioxide	ACGIH TLV (United States, 3/2012). Oxygen Depletion [Asphyxiant]. STEL: 54000 mg/m^3 15 minutes. STEL: 30000 ppm 15 minutes. TWA: 9000 mg/m^3 8 hours TWA: 5000 ppm 8 hours. NIOSH REL (United States, 1/2013). STEL: 54000 mg/m^3 15 minutes. STEL: 30000 ppm 15 minutes. TWA: 9000 mg/m^3 8 hours TWA: 5000 ppm 8 hours. OSHA PEL (United States, 6/2010). TWA: 9000 mg/m^3 8 hours TWA: 5000 ppm 8 hours. OSHA PEL 1989 (United States, 3/1989). STEL: 54000 mg/m^3 15 minutes.

	STEL: 30000 ppm 15 minutes. TWA: 9000 mg/m^3 8 hours TWA: 5000 ppm 8 hours.

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure control : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking, using the lavatory and at the end of your shift.
Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.
Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/Face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

9. Physical and Chemical Properties

Appearance

Physical state	:	Gas at normal temperature and pressure
Color	:	Colorless
Molecular weight	:	44.01 g/mol
Molecular formula	:	$C\text{-}O_2$
Melting/freezing point	:	Sublimation temperature: -79C (-110.2F)
Critical temperature	:	30.85C (87.5F)
Odor	:	Odorless
Odor threshold	:	Not available.
pH	:	Not available.
Flash point	:	[Product does not sustain combustion.]
Burning time	:	Not applicable.
Burning rate	:	Not applicable.
Evaporation rate	:	Not available.
Flammability (solid, gas)	:	Not available.
Lower and upper explosive (flammable) limits	:	Not available.
Vapor pressure	:	830 psig
Vapor density	:	1.53 (Air = 1), Liquid Density@BP: Solid Density = 97.5 lb/ft^3 (1562 kg/m^3)
Specific Volume	:	8.7719 ft^3/lb (m^3/g)
Gas Density	:	0.114 lb/ft^3 (178.6 g/m^3)
Relative density	:	Not applicable.
Solubility	:	Not available.
Solubility in Water	:	Not available.
Partition coefficient: n-octanol/water	:	0.83
Auto-ignition temperature	:	Not available.
Decomposition temperature	:	Not available.
SADT	:	Not available.
Viscosity	:	Not applicable.

10. Stability and Reactivity

Reactivity	:	No specific test data related to reactivity is available for this product or its ingredients.
Chemical stability	:	The product is stable.
Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	:	No specific data.
Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Hazardous polymerization	:	Under normal conditions of storage and use, hazardous polymerization will not occur.

11. Toxicological Information

Information on toxicological effects

Acute toxicity	:	Not available.
Irritation / Corrosion	:	Not available.
Sensitization	:	Not available.
Mutagenicity	:	Not available.
Carcinogenicity	:	Not available.
Reproductive toxicity	:	Not available.
Teratogenicity	:	Not available.
Specific target organ toxicity (single exposure)	:	Not available.
Specific target organ toxicity (repeated exposure)	:	Not available.
Aspiration hazard	:	Not available.
Information on the likely routes of exposure	:	Not available.

Potential acute health effects

Eye contact	:	No known significant effects or critical hazards.
Inhalation	:	No known significant effects or critical hazards.
Skin contact	:	No known significant effects or critical hazards.
Ingestion	:	Since this product is a gas, refer to the inhalation section.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	:	No specific data.
Inhalation	:	No specific data.
Skin contact	:	No specific data.
ingestion	:	No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure
Short term exposure

Potential immediate effects	:	Not available.
Potential delayed effects	:	Not available.

Long term exposure

Potential immediate effects	:	Not available.
Potential delayed effects	:	Not available.

Potential chronic health effects – Not available.

General	:	No known significant effects or critical hazards.
Carcinogenicity	:	No known significant effects or critical hazards.
Mutagenicity	:	No known significant effects or critical hazards.
Teratogenicity	:	No known significant effects or critical hazards.
Developmental effects		No known significant effects or critical hazards.
Fertility effects		No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates	:	Not available.

12. Ecological Information

Toxicity : Not available.

Persistence and degradability : Not available.

Bioaccumulative potential

Product/Ingredient name	Log P_{ow}	BCF	Potential
Carbon Dioxide	0.83	-	low

Mobility is soil

Soil/Water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

13. Disposal Considerations

Discharge of Carbon Dioxide : Gradually release in open air.

Disposal of Cylinders : If gas remains in cylinders, release gas with proper equipment and dispose of cylinders as incombustible waste.
For empty cylinders, check for a puncture hole and dispose of as incombustible waste.
Do not dispose of cylinders without first checking that all gas has been released.

14. Transport Information

DOT/IMDG Shipping Name : Carbon Dioxide

UN Number : UN 1013

Hazard Class (Division) : 2 (2.2)

Placard (When required) : Nonflammable gas

Special Shipping Information : See CFR 49, 172.101, 173.306 for exceptions of labeling.

IMDG/IMO Proper Shipping Name : Receptacles, small containing gas (Gas Cartridge ＜ 50ml)

UN Number : UN 2037

Hazard Class (Division) : 2 (2.2)

Special Provision : See Code191

IATA Proper Shipping Name : Receptacles, small containing gas

UN Number : UN2037

Hazard Class (Division) : 2 (2.2)

Special Provision	:	See Code A98

15. Regulatory Information

The following selected regulatory requirements may apply to this product. Not all such requirements are identified. Users of this product are solely responsible for compliance with all applicable federal, state, and local regulations.

U.S. Federal Regulations	:	None of this products components are listed under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.		
SARA 311/312 Hazardous Categories	:	Fire hazard	:	No
		Sudden release of pressure	:	Yes
		Reactive	:	No
		Immediate (acute) health hazard	:	No
		Delayed (chronic) health hazard	:	No
State Regulations	:	Massachusetts	:	This material is listed.
		New York	:	This material is not listed.
		New Jersey	:	This material is listed.
		Pennsylvania	:	This material is listed.
		California	:	This material is listed. Not regulated under CA Proposition 65.
International Regulations	:	Canada inventory		This material is listed or exempted.
		Australia inventory (AICS)		This material is listed or exempted.
		China inventory (IECSC)		This material is listed or exempted.
		Japan inventory		This material is listed or exempted.
		Korea inventory		This material is listed or exempted.
		Malaysia inventory (EHS Register)		Not determined.
		New Zealand inventory of Chemicals (NZIoC)		This material is listed or exempted.
		Philippines inventory (PICCS)		This material is listed or exempted.
		Taiwan inventory (CSNN)		Not determined.

16. Other Information

Hazard Rating Systems	:	**NFPA Ratings**	**HMIS Ratings**
		Health = 2	Health = 1
		Flammability = 0	Flammability = 0
		Reactivity = 0	Physical hazards = 3
		Special = SA	

Key to abbreviations

ACGIH	:	American Conference of Governmental Industrial Hygienists
BCF	:	Bioconcentration Factor
CAS	:	Chemical Abstract Services

CERCLA	:	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	:	United States Code of Federal Regulations
DOT	:	Department of Transportation
GHS	:	Globally Harmonized System of Classification and Labeling of Chemicals
IATA	:	International Air Transport Association
IMDG	:	International Maritime Dangerous Goods
IMO	:	International Maritime Organization
Log P_{ow}	:	Logarithm of the octanol/water partition coefficient
NIOSH	:	National Institute for Occupational Safety and Health
OSHA	:	Occupational Safety and Health Administration
STEL	:	Short-term Exposure Limit
SARA	:	Superfund Amendments and Reauthorization Act
TLV	:	Threshold Limit Value
TSCA	:	Toxic Substances Control Act
TWA	:	Time Weighted Average

Notice to reader:
To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee they are the only hazards that exist.

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

Product identifier

Trade name : Carbon Dioxide in non-refillable gas cylinders less than 118 ml (4 Fl oz.)

Safety data sheet no. :

Chemical description of gas : Carbon Dioxide
CAS-No.: 124-38-9

Chemical formula : CO_2

UN number : UN 1013

Usage : For various culinary and industrial applications
Perform risk assessment prior to use.

Company name : iSi North America Inc.
175 Route 46 West
Fairfield, NJ 07004
Website: www.isi.com
E-mail: info@isinorthamerica.com
Tel.: +1-973-227-2426

Emergency telephone number : Chemtrec Tel.: +1-800-424-9300

2 Hazards identification

Classification of the substance or mixture

Classification (GHS-US/GHS-CAN)

: Contains gas under pressure; may explode if heated H280
: Full text of H statements : see section 16

Label elements

GHS-US/GHS-CAN Labelling

• **Hazard pictograms**

• **Signal word** : Warning
• **Hazard statements** : H280 - Contains gas under pressure; may explode if heated
Precautionary statements: P410+P403 - Protect from sunlight. Store in a well-ventilated place

Other hazards

Other hazards : May cause asphyxiation in high concentrations.
Contact with solid CO2 (dry ice) or liquid CO2 may cause cold burns/ frost bite.

3 Composition/information on ingredients

Substance/Preparation : **Substance**

Substance name	CAS no.	%
Carbon dioxide	124-38-9	100

Does not contain any other components or impurities which could affect the classification of this product.

4 First-aid measures

Inhalation : Immediately remove victim to uncontaminated area. The victim should be made to wear respiratory equipment. Keep victim warm and rested. Call a doctor. Attempt artificial respiration if the victim stops breathing.

Contact with skin : No specific first aid necessary for this route of exposure.

Contact with eye : Flush eyes immediately with water for at least 15 minutes. Consult a doctor.

Ingestion : Ingestion is not considered a possible method of exposure.

5 Fire-fighting measures

Specific risks Cylinder may burst/explode if exposed to direct flame and thermal radiation by fire, respectively.

Hazardous combustion Products None

Extinguishing media
- Suitable extinguishing agent All known extinguishing media can be used.
Specific methods Move cylinder away from fire area, if this can be done without risk. If possible, attempt to stop gas release. Use fire fighting measures appropriate for the surrounding fire.

Special protective equipment for fire fighters Standard protective clothing and equipment (Self-contained breathing Apparatus.

6 Accidental release measures

Personnel-related precautions Evacuate area. Eliminate all ignition sources, if safe to do so. Provide adequate ventilation.

Environmental precautions Attempt to stop gas release. Prevent from entering sewer systems, basements, work pits or any other areas where accumulation could be hazardous.

Cleaning up methods Ventilate area

7 Handling and storage

Handling : Do not use oil or grease. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. If in doubt, consult supplier. Do not smoke while handling product. Use only oxygen approved lubricants and sealants. Only experienced and properly instructed persons should handle gases under pressure. Ensure the complete gas system was (or is regularly) checked for leaks before use. Use only with equipment suitable for this product, its supply pressure, and

temperature. If in doubt, contact supplier. The substance must be handled in accordance with good industrial hygiene and safety procedures.

Safe use of pressurized cylinder: Refer to supplier's handling instructions. Do not allow backfeed into cylinder. Do not subject cylinder to mechanical shocks which may cause damage to their integrity. Do not use cylinder as roller or support, or for any other purpose than to contain the gas as supplied. Never attempt to refill an empty cylinder. Never attempt to transfer gases from one cylinder to another. Emerging gas may cause the cylinder to freeze. Do not touch a discharging or recently discharged cylinder with bare hands. Never use direct flame or electrical heating devices to raise the pressure of a cylinder. Keep cylinder connections clean and fee from contaminants, particularly from oil and water. Only use equipment suitable for this product and its pressure and temperature specified. If in doubt, contact supplier.

Storage : Keep out of reach of children. Store cylinder in a well-ventilated place at less than 50°C. Store cylinder in a location free from risk of fire and away from sources of heat and ignition. Periodically check cylinder for general conditions and leakage. Do not store cylinder in conditions likely to encourage corrosion. Observe all regulations and local requirements regarding storage of gas cylinders.

8 Exposure controls/personal protection

Personal protection : Ensure adequate ventilation.
Systems under pressure should be regularly checked from leakages. Wear eye protection with side shields. Wearing working gloves while handling gas cylinders. Wear safety shoes while handling gas cylinders.

Occupational exposure limits : None

9 Physical and chemical characteristics

Physical state	:	Gas
Color	:	Colorless
Odor	:	Odorless
Odor threshold	:	No data available
pH	:	No data available
Melting point	:	-56.6 °C
Freezing point	:	No data available
Boiling point	:	-78.5 °C
Critical temperature	:	31 °C
Flash point	:	Not applicable
Relative evaporation rate (butyl acetate=1)	:	Not applicable
Flammability (solid, gas)	:	No data available
Explosion limits	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available
Vapor pressure	:	57.3
Relative density	:	No data available
Relative vapor density at 20 °C	:	No data available
Relative gas density	:	1.52

Solubility	:	Water: 2000 mg/l
Log Pow	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available

10 Stability and reactivity

Reactivity : No additional information available
Chemical stability : The product is stable at normal handling and storage conditions.
Possibility of hazardous reactions : Will not occur.
Conditions to avoid : None.
Incompatible materials : None.
Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11 Toxicological information

Toxicological information : There are no toxic effects known of this product.

12 Ecological information

Ecological effects information : No ecological damages caused from this product.

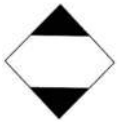
13 Disposable considerations

General : Do not discharge into any place where its accumulation could be dangerous. Release into the atmosphere in a well-ventilated place. Avoid releasing large quantities into the atmosphere. Consult your supplier if you require advice.

Disposal methods : Dispose of emptied cylinders only. Cylinders are made of recyclable steel and hence a valuable resource. Emptied cylinders should therefore always be recycled. Adhere to local waste regulations when disposing of emptied cylinders. Never dispose of cylinders in an uncontrolled manner (e.g. dumping at sea).

14 Transport information

In accordance with DOT
Transport document description : UN1013 Carbon dioxide, non-flammable compressed, 2.2
UN-No.(DOT) : UN1013
Proper Shipping Name (DOT) : Carbon dioxide
Class (DOT) : 2.2 - Class 2.2 - Non-flammable compressed gas 49 CFR 173.115
Hazard labels (DOT) : Disposable Cylinder **Limited Quantity Exemption** as per: Limited Quantity (49 CFR 173.306): Each cartridge < 4 fluid ounces (118 ml); No hazard labeling except by air, no specification packaging (cylinder), outer package < 66 pounds (30 Kg) gross.



In accordance with 173.306 of 49 CFR, and under the definition "Consumer Commodity" (171.8), the product can be shipped under the ORM-D label

Consumer Commodity: material that is packaged and distributed in a form intended or suitable through retail sales agencies

In accordance with TDG

UN-No. (TDG) : UN1013

TDG Primary Hazard Classes : 2.2 - Class 2.2 - Non-Flammable, Non-Toxic Gas.

Transport document description : UN1013 CARBON DIOXIDE, 2.2

TDG Proper Shipping Name : CARBON DIOXIDE

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

TDG Special Provisions : 148 - (1) Part 5 (Means of Containment) does not apply to radiation detectors that contain these dangerous goods in non-refillable pressure receptacles if (a) the working pressure in each receptacle is less than 5 000 KPa; (b) the capacity of each receptacle is less than 12 L; (c) each receptacle has a minimum burst pressure of (i) at least 3 times the working pressure, when the receptacle is fitted with a relief device, or (ii) at least 4 times the working pressure, when the receptacle is not fitted with a relief device; (d) each receptacle is manufactured from material that will not fragment upon rupture; (e) each detector is manufactured under a quality assurance program; ISO 9001:2008 is an example of a quality assurance program. (f) the detectors are transported in strong outer means of containment; and (g) a detector in its outer means of containment is capable of withstanding a 1.2 m drop test without breakage of the detector or rupture of the outer means of containment. (2) Part 5 (Means of Containment) does not apply to radiation detectors that contain these dangerous goods in non-refillable pressure receptacles and that are included in equipment, if (a) the conditions set out in paragraphs (1)(a) to (e) are met; and (b) the equipment is contained in a strong outer means of containment or the equipment affords the detectors with protection that is equivalent to that provided by a strong outer means of containment. (3) These Regulations, except for Part 1 (Coming into Force, Repeal, Interpretation, General Provisions and Special Cases) and Part 2 (Classification), do not apply to radiation

detectors that contain these dangerous goods in non-refillable pressure receptacles, including detectors in radiation detection systems, if the detectors meet the requirements of subsection (1) or (2), as applicable, and the capacity of the receptacles that contain the detectors is less than 50 mL. SOR/2014-306 UN1006, UN1013, UN1046, UN1056, UN1065, UN1066, UN1956, UN2036 SOR/2014-306

Explosive Limit and Limited Quantity Index : 0.125 L

Excepted quantities (TDG) : E1

15 Regulatory information

US Federal regulations

Carbon dioxide (124-38-9) : Listed on the United States TSCA (Toxic Substances Control Act) inventory

US State regulations

Carbon dioxide (124-38-9)
: U.S. - Massachusetts - Right To Know List
: U.S. - Minnesota - Hazardous Substance List
: U.S. - New Jersey - Right to Know Hazardous Substance List
: U.S. - Pennsylvania - RTK (Right to Know) List

Canada regulations

Carbon dioxide (124-38-9) : Listed on the Canadian DSL (Domestic Sustances List)

16 Other information

Full text of H-phrases : H280 - Contains gas under pressure; may explode if heated

May cause asphyxiation in high concentrations.
Keep cylinder in a well-ventilated place.
Do not inhale the gas.
The hazard of asphyxiation is often overlooked and must be stressed during operator training.

DISCLAIMER OF LIABILITY

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).

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