

DATE: JULY 14, 2020



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.

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.

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

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

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.

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

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

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.

|  | Max Gross Weight ≤ 40Kg                  | Max Gross Weight > 40Kg             |
|--|------------------------------------------|-------------------------------------|
|  | N/A                                      | UN2990. Declare as Dangerous Goods. |
|  | Life Saving Appliance, Self-Inflating    |                                     |
|  | N/A                                      | Class 9                             |
|  | N/A                                      |                                     |
|  | Reference IATA packing instructions 955. |                                     |

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

Original

Supplier's Safety Data Sheets can be found on our website at  
[www.eamworldwide.com/technical-data/](http://www.eamworldwide.com/technical-data/)

**1. Identification**

Product Identifier : Carbon Dioxide  
Other means of identification : Carbonic, Carbon Dioxide, Carbonic Anhydride, CO<sub>2</sub>, 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, CO <sub>2</sub> |
| 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].<br>STEL: 54000 mg/m <sup>3</sup> 15 minutes.<br>STEL: 30000 ppm 15 minutes.<br>TWA: 9000 mg/m <sup>3</sup> 8 hours<br>TWA: 5000 ppm 8 hours.<br>NIOSH REL (United States, 1/2013).<br>STEL: 54000 mg/m <sup>3</sup> 15 minutes.<br>STEL: 30000 ppm 15 minutes.<br>TWA: 9000 mg/m <sup>3</sup> 8 hours<br>TWA: 5000 ppm 8 hours.<br>OSHA PEL (United States, 6/2010).<br>TWA: 9000 mg/m <sup>3</sup> 8 hours<br>TWA: 5000 ppm 8 hours.<br>OSHA PEL 1989 (United States, 3/1989).<br>STEL: 54000 mg/m <sup>3</sup> 15 minutes. |

|  |                                                                                              |
|--|----------------------------------------------------------------------------------------------|
|  | STEL: 30000 ppm 15 minutes.<br>TWA: 9000 mg/m <sup>3</sup> 8 hours<br>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.<br>Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.<br>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-O <sub>2</sub>                                                                                     |
| 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 <sup>3</sup> (1562 kg/m <sup>3</sup> ) |
| Specific Volume                              | : 8.7719 ft <sup>3</sup> /lb ( m <sup>3</sup> /g)                                                      |
| Gas Density                                  | : 0.114 lb/ft <sup>3</sup> (178.6 g/m <sup>3</sup> )                                                   |
| 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<br>(single exposure)   | : Not available. |
| Specific target organ toxicity<br>(repeated exposure) | : Not available. |
| Aspiration hazard                                     | : Not available. |
| Information on the likely<br>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 <sub>ow</sub> | BCF | Potential |
|-------------------------|---------------------|-----|-----------|
| Carbon Dioxide          | 0.83                | -   | low       |

## Mobility in soil

Soil/Water partition coefficient (K<sub>oc</sub>) : 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 : Carbon Dioxide  
Shipping Name :  
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 : Receptacles, small containing gas (Gas Cartridge < 50ml)  
Proper Shipping Name :  
UN Number : UN 2037  
Hazard Class (Division) : 2 (2.2)  
Special Provision : See Code 191  
IATA : Receptacles, small containing gas  
Proper Shipping Name :  
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              | : Fire hazard : No                                                                                                                                                                                              |
| Hazardous Categories      | 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 Not determined.                                                                                                                                                                              |
|                           | (EHS Register)                                                                                                                                                                                                  |
|                           | New Zealand inventory of This material is listed or exempted.                                                                                                                                                   |
|                           | Chemicals (NZIoC)                                                                                                                                                                                               |
|                           | Philippines inventory This material is listed or exempted.                                                                                                                                                      |
|                           | (PICCS)                                                                                                                                                                                                         |
|                           | Taiwan inventory (CSNN) Not determined.                                                                                                                                                                         |

**16. Other Information**

|                       |                       |                      |
|-----------------------|-----------------------|----------------------|
| Hazard Rating Systems | : <b>NFPA Ratings</b> | <b>HMIS Ratings</b>  |
|                       | 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 <sub>ow</sub> | : 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.

**Product identifier**

Trade name

Safety data sheet no.

Chemical description of gas

Chemical formula

UN number

Usage

Company name

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Emergency telephone number

**Classification of the substance or mixture**

Classification GHS-US/GHS-CAN)

**Label elements**

GHS-US/GHS-CAN Labelling

• Hazard pictograms



• Signal word

• Hazard statements

Precautionary statements

**Other hazards**

Other hazards

**Substance/Preparation**

: Substance

Substance name  
Carbon dioxide

CAS no.

%

.

Inhalation

Contact with skin

Contact with eye

Ingestion

Specific risks

Hazardous combustion Products

Extinguishing media

Suitable extinguishing agent

Specific methods

Special protective equipment for  
fire fighters

Personnel-related precautions

Environmental precautions

Cleaning up methods

Handling

|                                                                                   |  |  |
|-----------------------------------------------------------------------------------|--|--|
|  |  |  |
|                                                                                   |  |  |
|                                                                                   |  |  |
|                                                                                   |  |  |

Storage

Personal protection

Occupational exposure limits :

- Physical state
- Color
- Odor
- Odor threshold
- pH
- Melting point
- Freezing point
- Boiling point
- Critical temperature
- Flash point
- Relative evaporation rate (butyl acetate=1)
- Flammability (solid, gas)
- Explosion limits
- Explosive properties
- Oxidizing properties
- Vapor pressure
- Relative density
- Relative vapor density at 20 °C
- Relative gas density



|                                                                                   |  |  |
|-----------------------------------------------------------------------------------|--|--|
|  |  |  |
|                                                                                   |  |  |
|                                                                                   |  |  |
|                                                                                   |  |  |

Solubility  
 Log Pow  
 Auto-ignition temperature  
 Decomposition temperature  
 Viscosity  
 Viscosity, kinematic  
 Viscosity, dynamic

|                                                                                   |  |  |
|-----------------------------------------------------------------------------------|--|--|
|  |  |  |
|                                                                                   |  |  |
|                                                                                   |  |  |
|                                                                                   |  |  |

Reactivity  
Chemical stability  
Possibility of hazardous reactions  
Conditions to avoid  
Incompatible materials  
Hazardous decomposition products

Toxicological information

Ecological effects information

General

Disposal methods

|                                                                                   |  |  |
|-----------------------------------------------------------------------------------|--|--|
|  |  |  |
|                                                                                   |  |  |
|                                                                                   |  |  |
|                                                                                   |  |  |

11/1



In accordance with TDG  
UN-No. (TDG)  
TDG Primary Hazard Classes  
Transport document description  
TDG Proper Shipping Name  
Hazard labels (TDG) :



TDG Special Provisions

|  |  |  |
|--|--|--|
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|  |  |  |
|  |  |  |