

MSDS	MATERIAL SAFETY DATA SHEET
Leland Limited, Inc. 2614 South Clinton Ave. South Plainfield, NJ 07080 908-668-1008 9-5 EST 908-668-1744** 908-668-7716 **speak a callback number then hit #911. Someone will call back in a short amount of time.	Emergency Contact Information: CHEMTREC Domestic 800-424-9300 International 703-527-3887
	Gas: Carbon Dioxide UN# 1013 Carbonic acid gas, Carbonic anhydride, CO ₂ , Molecular Mass: 44.0

Component: Carbon Dioxide Gas (CAS#124-38-9) 100%

CERCLA Ratings (Scale 0-3): Health=3, Fire=0, Reactivity=0, Persistence=0

NFPA Ratings (Scale 0-4): Health=U, Fire=0, Reactivity=0

Physical State; Appearance: Odorless, colorless, compressed liquefied gas with a slight acidic taste.

Types of Hazard & Exposure	Acute Hazards / Symptoms	Prevention	First Aid / Fire Fighting
Fire	Not Combustible		In case of fire in the surroundings: use appropriate extinguishing media.
Explosion	Containers may burst in the heat of a fire!		In case of fire: keep cylinder cool by spraying with water. Combat fire from a sheltered position.
Exposure			
Inhalation	Dizziness. Headache. Elevated blood pressure. Tachycardia.	Ventilation.	Fresh air, rest. Artificial respiration may be needed. Refer for medical attention.
Skin	ON CONTACT WITH LIQUID: FROSTBITE	Cold insulating gloves. Protective clothing.	ON FROSTBITE: rinse with plenty of warm water, do NOT remove clothes. Refer for medical attention;
Eyes	May cause irritation at high concentrations.	Safety goggles or face shield.	First rinse with plenty of warm water for several minutes (remove contact lenses if easily possible), then take to a doctor.
Ingestion			
Spillage Disposal	Storage		Packaging & Labeling
Ventilation. NEVER direct water jet on liquid. Personal protection: self-contained breathing apparatus.	Fireproof if in building. Cool.		R: S: UN Hazard Class: 2.2

Physical Properties	Boiling Point: -79°C Melting Point : -57°C Specific Gravity: 1.52@21 C Vapor Pressure: 43700 mmHG @ 21 C
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	<p>Solubility in Water: Soluble</p> <p>Solvent Solubility: Soluble in alcohol, acetone, hydrocarbons, most organic liquids.</p> <p>Vapor Density: 1.977 G/l @ 750 mmHg and 0 C</p>
Physical Dangers	<p>The gas is heavier than air and may accumulate in low ceiling spaces causing deficiency of oxygen. Build up of static electricity can occur at fast flow rates and may ignite any explosive mixtures present. Free flowing liquid condenses to form extremely cold dry ice.</p>
Chemical Dangers	<p>The substance decomposes on heating above 2000°C producing toxic carbon monoxide. Reacts violently with strong bases and alkali metals. Various metals dusts such as magnesium, zirconium, titanium, aluminum, chromium, and manganese are ignitable and explosive when suspended and heated in carbon dioxide.</p>
Routes of Exposure	<p>The substance can be absorbed into the body by inhalation.</p>
Inhalation Risk	<p>On loss of containment this liquid evaporates very quickly causing supersaturation of the air with serious risk of suffocation when in confined areas.</p>
Effects of Short Term Exposure	<p>Inhalation of high concentrations of this gas may cause hyperventilation and unconsciousness. Rapid evaporation of the liquid may cause frostbite.</p>
Effects of long term exposure	<p>The substance may have effects on the metabolism.</p>
Applicability	<p>Leland Produces and ships many gas filled cylinders and the content (type of gas) is identified on the cylinder label, cylinder box, or shipping carton. ORM-D is a shipping label relating to a gas type which has been re-named as Consumer Commodity as allowed per 49 CFR 173.306.</p>