



BJ SERVICES COMPANY
MATERIAL SAFETY DATA SHEET

Region
USA

SECTION I - GENERAL INFORMATION

PRODUCT NAME: **Carbon Dioxide**
ITEM NUMBER : 100224
CHEMICAL DESCRIPTION: Carbon dioxide gas or liquid
PRODUCT USE: Gas
SUPPLIER: BJ Services Company
ADDRESS: 11211 FM 2920
Tomball, TX 77375
**EMERGENCY TELEPHONE NUMBER (800)424-9300 for CHEMTREC
(202)483-7616 Alaska and International**
PREPARED BY: BJ Services Environmental Group
(281)351-8131
DATE PREPARED: August 4, 2000 Supersedes: December 1992

HMIS HAZARD INDEX

HEALTH: 4
FLAMMABILITY: 0
REACTIVITY: 0
PERSONAL PROTECTION: g

SECTION II - HAZARDOUS COMPONENTS

HAZARDOUS COMPONENTS	CAS #	PERCENT	HAZARD
Carbon dioxide	124-38-9	100	Asphyxiant

SECTION III - FIRE AND EXPLOSION HAZARD DATA

FLASHPOINT (METHOD): N.A.
UPPER EXPLOSION LIMIT(% BY VOL): N.A.
LOWER EXPLOSION LIMIT(% BY VOL): N.A.
AUTO-IGNITION TEMPERATURE: N.A.
EXTINGUISHING MEDIA: Carbon dioxide cannot catch fire. Use appropriate media for surrounding fire.
SPECIAL FIRE FIGHTING PROCEDURES: Evacuate all personnel from danger area. Immediately deluge containers with water spray from maximum distance until cool, then move containers away from fire area if without risk.
EXPLOSION DATA: Gas cannot catch fire. Container may rupture due to heat of fire. No part of a container should be subjected to a temperature higher than 125°F. Most containers are provided with a pressure relief device to vent contents if exposed to high temperatures.
HAZARDOUS COMBUSTION PRODUCTS: N.A.

SECTION IV - HEALTH HAZARD DATA

PRIMARY ROUTES OF ENTRY: Inhalation

ACUTE OVEREXPOSURE EFFECTS:

SKIN CONTACT: No harmful effects from vapor. Liquid may cause frostbite.
SKIN ABSORPTION: No evidence of adverse effects.
EYE CONTACT: Vapor may cause a stinging sensation; liquid may cause frostbite.
INHALATION: ASPHYXIAN! Moderate concentrations may cause headache, drowsiness, dizziness, stinging of the nose and throat, excitation, rapid breathing, excess salivation, vomiting, and unconsciousness. Lack of oxygen can cause death. Damage to retinal ganglion cells and central nervous system may occur.
INGESTION: A highly unlikely route of exposure. Frostbite of the lips and mouth may result from contact with the liquid.

CHRONIC OVEREXPOSURE EFFECTS: No evidence of adverse effects.

EXPOSURE LIMITS:

HAZARDOUS COMPONENT	ACGIH TLV	OSHA PEL
Carbon dioxide	10,000 ppm	30,000 ppm

CARCINOGENICITY, REPRODUCTIVE EFFECTS:

Not listed as carcinogen - IARC, NTP, or OSHA

TERATOGENICITY, MUTAGENICITY:

No effects reported

TOXICITY STUDIES:

LD(50) N.E.

LC(50) N.E.

SECTION V - FIRST AID PROCEDURES

FOR EYES: In case of splash contamination, immediately flush eyes thoroughly with water for at least 15 minutes. See a physician, preferably an ophthalmologist, immediately.

FOR SKIN: For exposure to liquid, immediately warm frostbite area with warm water (not to exceed 105°F). In case of massive exposure, remove clothing while showering with warm water. Call a physician.

FOR INHALATION: Immediately flush with plenty of water for at least 15 minutes.

FOR INGESTION: This product is a gas at normal temperature and pressure.

SECTION VI - PHYSICAL DATA

APPEARANCE AND ODOR: Colorless gas at normal temperature and pressure; odorless

SPECIFIC GRAVITY: N.A.

VAPOR PRESSURE: 830 psi
VAPOR DENSITY (air=1): 1.522
EVAPORATION RATE: High
BOILING POINT: -110°F
FREEZING POINT: N.A.
SOLUBILITY IN H2O: Slight
pH: N.A.

SECTION VII - REACTIVITY DATA

CHEMICAL STABILITY: Stable
INCOMPATIBLE MATERIALS: Alkali metals, alkaline earth metals, metal acetylides, chromium, titanium above 550°C, uranium above 750°C
HAZARDOUS POLYMERIZATION: Does not polymerize
HAZARDOUS DECOMPOSITION PRODUCTS: In the presence of an electrical discharge, carbon dioxide is decomposed to form carbon monoxide and oxygen.

SECTION VIII - SPECIAL/PERSONAL PROTECTION

VENTILATION: The use of mechanical ventilation is recommended whenever this product is used in a confined space. Where engineering controls are not feasible, assure use is in an area where there is natural air movement.
RESPIRATORY PROTECTION: Not required
PROTECTIVE GLOVES: Insulated neoprene
EYE PROTECTION: Goggles
OTHER PROTECTIVE EQUIPMENT: Eyewash bottles or other rinsing equipment should be easily accessible.

SECTION IX - HANDLING PRECAUTIONS

LEAK AND SPILL PROCEDURES: Evacuate all personnel from danger area. Use self-contained breathing apparatus where needed. Shut off leak if without risk. Ventilate area of leak or move leaking container to well-ventilated area. Test area, especially confined areas, for sufficient oxygen content prior to permitting re-entry of personnel.
WASTE DISPOSAL: If this product becomes a waste, it does not meet the requirements of a RCRA hazardous waste. Always dispose of according to all local, state, and federal regulations.
HANDLING & SPECIAL EQUIPMENT: CAUTION! High pressure liquefied gas. Use piping and equipment adequately designed to withstand pressures to be encountered. Can cause rapid suffocation due to oxygen deficiency. Close valve when not in use and when empty. Carbon dioxide, being heavier than air, tends to accumulate near the floor of an enclosed space displacing the air upward and creates an oxygen-deficient atmosphere.
STORAGE REQUIREMENTS: Store in a well-ventilated area.

SECTION X - REGULATORY INFORMATION

SHIPPING INFORMATION

PROPER SHIPPING NAME: Carbon Dioxide
HAZARD CLASS: 2.2
UN/NA NUMBER: UN 1013
PACKING GROUP W/ "PG": N.A.
SUBSIDIARY RISK: N.A.
REPORTABLE QUANTITY (RQ): N.A.
EMERGENCY RESPONSE GUIDE #: 120

ENVIRONMENTAL INFORMATION

SARA TITLE III

SECTION 302/304 This product does not contain ingredients listed as an Extremely Hazardous Substance.
SECTION 311/312 Immediate, Sudden release of pressure
SECTION 313 This product does not contain ingredients (at a level of 1% or greater) on the List of Toxic Chemicals.

OTHER REGULATORY INFORMATION

TSCA INVENTORY: All of the components in this appear on the TSCA inventory.
CALIFORNIA PROP 65: None of the chemicals on the current Proposition 65 list are known to be present in this product.

The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, vendor assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in his use of the material.