

MATERIAL SAFETY DATA SHEET

AMEREX CORPORATION
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 RESPONSIBLE PARTY: MSDS COORDINATOR

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DATE PREPARED: 8-1-91
 SUPERSEDES: 6-22-88

IDENTIFICATION

PRODUCT NAME: CARBON DIOXIDE
 SYNONYMS: CO₂, CARBONIC ACID, CARBONIC ANHYDRIDE

HAZARDOUS INGREDIENTS

MATERIAL	CAS NO.	OSHA PELS				ACGIH TLV			
		TWA ppm	STEL/CEIL mg/m ³						
Carbon Dioxide	124-38-9	10,000	18,000	30,000	54,000	5,000	9,000	30,000	54,000

OTHER INGREDIENTS

NONE

PHYSICAL AND CHEMICAL CHARACTERISTICS

BOILING POINT (°F): -109	SPECIFIC GRAVITY (H ₂ O = 1): NA	VAPOR PRESSURE (MM HG): At 70° F Gas
PERCENT VOLATILE (%): 100	VAPOR DENSITY (AIR = 1): 1.52	EVAPORATION RATE: High
SOLUBILITY IN WATER: .8v/v H ₂ O	REACTIVITY IN WATER: NA	MELTING POINT (°F): NA
pH: NA	APPEARANCE & ODOR: Colorless liquid or gas. No odor.	
FLASH POINT (°F): None	AUTO IGNITION TEMPERATURE (°F): NA	FLAMMABLE LIMITS IN AIR BY VOL: NA
EXTINGUISHER MEDIA: None. This material is an extinguishing agent.		
SPECIAL FIRE FIGHTING PROCEDURES: None.		
UNUSUAL FIRE AND EXPLOSION HAZARDS: None.		

PHYSICAL HAZARDS

STABILITY: Stable	CONDITIONS TO AVOID: NA
INCOMPATIBILITY (MATERIALS TO AVOID): Chemically active metals, such as Sodium, Potassium, Hot Titanium	
HAZARDOUS DECOMPOSITION PRODUCTS: None	
HAZARDOUS POLYMERIZATION: Will not occur	
CONDITIONS TO AVOID: NA	

HEALTH EFFECTS AND FIRST AID

EFFECTS OF ACUTE OVEREXPOSURE FOR PRODUCT:

EYES: Contact with liquid or solid will cause burns, frostbite, or blindness.
SKIN: Contact with liquid or solid will cause burns or frostbite.
BREATHING: Slightly toxic asphyxiant.
SWALLOWING: Not likely.

FIRST AID:

IF IN EYES: Treat areas exposed to solid or liquid as frostbite. Seek medical attention.
IF ON SKIN: Treat areas exposed to solid or liquid as frostbite. Seek medical attention.
IF BREATHED: Provide fresh air or oxygen. If symptoms persists, seek medical attention.
IF SWALLOWED: Treat areas exposed to solid or liquid as frostbite. Seek medical attention.

PRIMARY ROUTES OF ENTRY: Eyes, Skin Contact, Breathing

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: None known.

EFFECTS OF CHRONIC OVEREXPOSURE FOR PRODUCT: High concentrations can paralyze respiratory center. Increased inhalation will cause increased breathing rate. Unconsciousness and death may result.

PRODUCT LISTED AS CARCINOGEN OR POTENTIAL CARCINOGEN:

NATIONAL TOXICOLOGY PROGRAM: YES
 NO

IARC MONOGRAPHS: YES
 NO

OSHA: YES
 NO

CONTROL MEASURES AND PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION (TYPE): Use self-contained breathing apparatus or airline respirators when CO₂ has been released and has diminished the oxygen content below 19%.

VENTILATION: GENERAL AREA: Recommended

CAL EXHAUST: Recommended

SKIN PROTECTION: Use insulated gloves when handling as liquid or solid.

EYE PROTECTION: Safety Glasses

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: None required.

WORK/HYGIENE PRACTICES: Use good personal hygiene and good housekeeping practices.

SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Store away from direct heat or open flame.

OTHER PRECAUTIONS: None.

STEPS TO BE TAKEN IN CASE PRODUCT IS RELEASED OR SPILLED: Leaks will dissipate rapidly and harmlessly to atmosphere. For confined areas remove all personnel and ventilate area. Vent to atmosphere in open area.

HMIS RATINGS:

HEALTH 1
FLAMMABILITY 0
REACTIVITY 0

HMIS HAZARD INDEX:

MINIMAL 0
SLIGHT 1
MODERATE 2
SERIOUS 3
SEVERE 4

The information provided herein is offered in good faith and is to the best of our knowledge current. Although certain hazards are described herein we cannot state that these are the only hazards which exist. Final determination of suitability and safe usage of this material is the sole responsibility of the user who is obligated to review this data in the specific context of the intended use and determine appropriateness. No guarantee is implied or expressed regarding the accuracy of this information or the use of this material since the conditions of use are beyond our control.