

BIG THREE INDUSTRIES, INC -- CARBON DIOXIDE -- 6830-01-212-7489

===== Product Identification =====

Product ID:CARBON DIOXIDE

MSDS Date:07/21/1997

FSC:6830

NIIN:01-212-7489

Status Code:A

MSDS Number: CHXBY

=== Responsible Party ===

Company Name:BIG THREE INDUSTRIES, INC

Address:3535 W 12TH ST

Box:3047

City:HOUSTON

State:TX

ZIP:77253

Country:US

Emergency Phone Num:713-868-0202

CAGE:17688

=== Contra

ctor Identification ===

Company Name:AIR LIQUIDE AMERICA CORPORATION

Address:2700 POST OAK DRIVE

Box:City:HOUSTON

State:TX

ZIP:77056-8229

Country:US

Phone:713-896-2896;800-231-1366

CAGE:17688

===== Composition/Information on Ingredients =====

Ingred Name:CARBON DIOXIDE

CAS:124-38-9

RTECS #:FF6400000

Fraction by Wt: >99.5%

Other REC Limits:NONE RECOMMENDED

OSHA PEL:5000 PPM

ACGIH TLV:5000PPM/30000STEL;96

Ingred Name:IMPURITIES

Fraction by Wt: < 0.5%

Other REC Limits:NONE RECO

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===== Hazards Identification =====

LD50 LC50 Mixture:LCLO (INHALATION, HUMAN): 9PPH/5MINUTES

Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO

Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO

Health Hazards Acute and Chronic:CARBON DIOXIDE IS AN ASPHYXIANT GAS WHICH HAS PHYSIOLOGICAL EFFECTS AT HIGH CONCENTRATIONS. HIGH CONCENTRATIONS CAN ALSO RESULT IN NARCOSIS. CONTACT WITH COLD, RAPIDLY EXPANDING GASES CAN CAUSE FROSTBITE AND DAMAGE TO EXPOSED SKIN AND EYES.

Explanation of Carcinogenicity:THIS COMPOUND CONTAINS NO INGREDIENTS AT CONCENTRATIONS OF 0.1% OR GREATER THAT ARE CARCINOGENS OR SUSPECT CARCINOGENS.

Effects of Overexposure:FROSTBITE, ASPHYXIATION, INCREASE BREATHING RATE, HEADACHE, TIREDNESS, IMPAIRED HEARING, INCREASE IN BLOOD PRESSURE/HEART RATE, VISUAL IMPAIRMENT, RINGING IN EARS, IMPAIRED JUDGMENT, UNCONSCIOUSNESS, DEATH.

Medical Cond Aggravated by Exposure:PRE-EXISTING CONDITIONS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT.

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===== First Aid Measures =====

First Aid:REMOVE VICTIM TO FRESH AIR AS QUICKLY AS POSSIBLE. TRAINED PERSONNEL SHOULD ADMINISTER SUPPLEMENTAL OXYGEN AND/OR CARDIO-PULMONARY RESUSCITATION. SKIN:REMOVE ANY CLOTHING THAT MAY RESTRICT CIRCULATION TO FROZEN AREA. DO NOT RUB. PLACE AFFECTED AREA IN WARM WATER BATH. NEVER USE HOT WATER. NEVER USE DRY HEAT. EYES: FLUSH WITH WATER FOR 15 MINUTES, HOLDING EYELIDS OPEN. GET MEDICAL ATTN IN ALL CASES

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===== Fire Fighting Measures =====

Flash Point:NONFLAMMABLE

Lower Limits:NOT GIVEN

Upper Limits:NOT GIVEN

Extinguishing Media:CARBON DIOXIDE IS COMMONLY USED AS AN EXTINGUISHING AGENT FOR CLASS B & C FIRES. USE MEDIA APPROPRIATE FOR FIRE.

Fire Fighting Procedures:CARBON DIOXIDE DOES NOT BURN, HOWEVER, CONTAINERS MAY RUPTURE OR BURST IN HEAT OF FIRE. COOL TANKS AND CONTAINERS EXPOSED TO FIRE W

ITH WATER.

Unusual Fire/Explosion Hazard:CONTACT WITH COLD, GASEOUS OR SOLID CARBON DIOXIDE MAY CAUSE FROSTBITE.

===== Accidental Release Measures =====

Spill Release Procedures:EVACUATE IMMEDIATE AREA. PROPER PROTECTIVE EQUIPMENT SHOULD BE USED. LOCATE AND SEAL SOURCE OF LEAKING GAS. ALLOW GAS TO DISSIPATE. MONITOR THE SURROUNDING AREA FOR CARBON DIOXIDE AND OXYGEN LEVELS.

Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

===== Handling and Storage =====

Handling and Storage Precautions:CYLINDERS SHOULD BE STORED UPRIGHT & FIRMLY SECURED TO PREVENT FALLING OR BEING KNOCKED OVER. CYLINDER SHOULD BE PROTECTED AGAINST WEATHER EXTREMES.

Other Precautions:CYLINDERS SHOULD BE STORED IN DRY, WELL-VENTILATED AREAS AWAY FROM SOURCES OF HEAT, IGNITION AND DIRECT SUNLIGHT. STORE CONTAINERS AWAY FROM HEAVILY TRAFFICKED AREAS AND EMERGENCY EXITS. STORE AWAY FROM PROCESS AND PRODUCTION AREAS.

===== Exposure Controls/Personal Protection =====

Respiratory Protection:USE SUPPLIED AIR RESPIRATORY PROTECTION IF CO2 LEVELS ABOVE 19.5%. USE SUPPLIED AIR RESPIRATORY PROTECTION IF CO2 LEVELS ARE ABOVE 40,000 PPM OR DURING EMERGENCY RESPONSE TO A RELEASE.

Ventilation:EXHAUST VENTILATION SUFFICIENT TO KEEP AIRBORNE CONCENTRATIONS BELOW RESPECTIVE TLV'S.

Protective Gloves:LEATHER OR THERMALLY INSULATED

Eye Protection:SAFETY GLASSES

Other Protective Equipment:USE

BODY PROTECTION APPROPRIATE FOR TASK.

SAFETY SHOES ARE RECOMMENDED WHEN HANDLING CYLINDERS.

Work Hygienic Practices:BE AWARE OF ANY SIGNS OF DIZZINESS OR FATIGUE; EXPOSURES TO FATAL CONCENTRATIONS COULD OCCUR WITHOUT SIGNIFICANT WARNING

Supplemental Safety and Health

THE LEVEL OF CARBON DIOXIDE MUST BE BELOW 3% AND THE ATMOSPHERE MUST HAVE AT LEAST 19.5% OXYGEN BEFORE PERSONNEL CAN BE ALLOWED IN AREAS WITHOUR SCBA.

===== Physical/Chemical Properties =====

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HCC:G3

Boiling Pt:B.P. Text:NOT GIVEN

Melt/Freeze Pt:M.P/F.P Text:-109F,-78C

Decomp Temp:Decomp Text:NOT GIVEN

Vapor Pres:838 PSIG

Vapor Density:> 1

Spec Gravity:1.522 (AIR=1)

Evaporation Rate & Reference:NOT GIVEN

Solubility in Water:SLIGHT

Appearance and Odor:COLORLESS, ODORLESS GAS

Percent Volatiles by Volume:100%

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES

POWDERED ALUMINUM, BERYLIUM, CERIUM ALLOYS, CHROMIUM,

MAGNESIUM-ALUMINUM ALLOYS, MANGANESE, THORIUM, TITANIUM, ZIRCONIUM

Stability Condition to Avoid:PHYSICAL DAMAGE, EXTREME TEMPERATURES

Hazardous Decomposition Products:CARBON MONOXIDE, OXYGEN

===== Disposal Considerations =====

Waste Disposal Methods:WASTE DISPOSAL MUST BE IN ACCORDANCE WITH APPROPRIATE FEDERAL, STATE AND LOCAL REGULATIONS. RETURN CYLINDERS WITH ANY RESIDUAL PRODUCT TO AIR LIQUIDE. DO NOT DISPOSE OF LOCALLY.

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