

AMERIGAS INC INDUSTRIAL GASES DIV -- CARBON DIOXIDE, REFRIGERATED LIQUID, BULK  
CARBON DIOXIDE -- 6830-00-292-0142

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Product Identification  
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Product ID:CARBON DIOXIDE, REFRIGERATED LIQUID, BULK CARBON DIOXIDE

MSDS Date:11/25/1985

FSC:6830

NIIN:00-292-0142

MSDS Number: BWDVF

=== Responsible Party ===

Company Name:AMERIGAS INC INDUSTRIAL GASES DIV

Address:LEIGHTON BLDG

Box:965

City:VALLEY F

ORGE

State:PA

ZIP:19481

Country:US

Info Phone Num:215-337-7000

Emergency Phone Num:215-337-7000

CAGE:2W147

=== Contractor Identification ===

Company Name:AMERIGAS INC INDUSTRIAL GASES DIV

Address:LEIGHTON BLDG

Box:965

City:VALLEY FORGE

State:PA

ZIP:19481

Country:US

Phone:215-337-7000

CAGE:2W147

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Composition/Information on Ingredients  
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Ingred Name:HYDROGEN

CAS:1333-74-0

RTECS #:MW8900000

Fraction by Wt: 100%

Other REC Limits:NONE RECOMMENDED

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azards Identification =====

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

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

Health Hazards Acute and Chronic:CARBON DIOXIDE IS THE MOST POWERFUL CEREBAL VASODILATOR KNOWN. INHALING LARGE CONCENTRATIONS CAUSES RAPID CIRCULATORY INSUFFICIENCY LEADING TO COMA AND DEATH. CHRONIC, HARMFUL EFFECTS ARE NOT KNOWN FROM REPEATED INHALATION OF LOW (3-5 MOLAR%) CONCENTRATIONS. FROSTBITE EFFECTS ARE A CHANGE IN THE COLOR OF THE SKIN.

Explanation of Carcinogenicity:NOT CARCINOGENIC.

Effects of Overexposure:INHALATION: LOW CONCENTRATIONS (3-5 MOLAR%) CAUSE INCREASED RESPIRATION AND HEADACHE. EIGHT TO 15 MOLAR % CONCENTRATIONS CAUSE HEADACHE, NAUSEA AND VOMITING WHICH MAY LEAD TO UNCONSCIOUSNESS IF NOT MOVED TO OPEN AIR OR GIVEN OXYGEN.

Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

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

First Aid:INHALATI

ON: CONSCIOUS PERSON SHOULD BE ASSISTED TO AN UNCONTAMINATED AREA AND INHALE FRESH AIR. QUICK REMOVAL FROM THE CONTAMONATED AREA IS MOST IMPORTANT. UNCONSCIOUS PERSON SHOULD BE MOVED TO AN UNC ONTAMINATED AREA, GIVEN MOUTH-TO-MOUTH RESUSCITATION AND SUPPLEMENTAL OXYGEN. ASSURE THAT VOMITED MATERIAL DOES NOT OBSTRUCT THE AIRWAY BY USE OF POSITIONAL GRAINAGE. SEEK MEDICAL ASSISTANCE.

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

Autoignition Temp:Auto

toignition Temp Text:1058F

Extinguishing Media:NONFLAMMABLE, INERT GAS.

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

Spill Release Procedures:NONE SPECIFIED BY MANUFACTURER.

Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions:COMPRESSED GAS CYLINDERS SHOULD NOT BE REFILLED EXCEPT BY QUALIFIED PRODUCDURES OF COMPRESSED GASES.

Other Precautions:SHIPMENT OF A COMPRESEED

GAS CYLINDER WHICH HAS NOT BEEN FILLED BY THE OWNER OR WITH HIS (WRITTEN) CONSENT IS A VIOLATION OF FEDERAL LAW (49CFR).

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

Respiratory Protection: POSITIVE PRESSURE AIR LINED WITH MASK OR SELF-CONTAINED BREATHING APPARATUS SHOULD BE AVAILABLE FOR EMERGENCY USE.

Ventilation: LOCAL EXHAUST TO PREVENT ACCUMULATION ABOVE TWA.

Protective Gloves: LOOSE FITTING, INSULATED

Eye Protection: SAFETY GOGGLES OR GLASSES.

Other Pr

otective Equipment: SAFETY SHOES.

Work Hygienic Practices: WASH THOROUGHLY AFTER HANDLING.

Supplemental Safety and Health

DRY CARBON DIOXIDE CAN BE HANDLED WITH MOST COMMON STRUCTURAL MATERIALS. MOIST CARBON DIOXIDE IS CORROSIVE BY ITS FORMATION OF CARBONIC ACID. FOR THESE APPLICATIONS, 316, 309 AND 310 STAINLESS STEELS MAY BE USED AS WELL AS HASTELLOY A, B, & C AND MONEL FERROUS NICKEL ALLOYS ARE SLIGHTLY CORRODED.

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

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HCC: G3

Boiling Pt: B.P. Text: 109F, 43C

Melt/Freeze Pt: M.P/F.P Text: -69F, -56C

Vapor Pres: 856 PSIA

Vapor Density: .124

Spec Gravity: 1.65

Solubility in Water: VERY SOLUBLE

Appearance and Odor: COLORLESS, ODORLESS GAS.

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

Stability Indicator/Materials to Avoid: YES

NONE

Hazardous Decomposition Products: CARBON MONOXIDE.

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

Waste Disposal Methods: DISPOSE OF IN ACCORDANCE

WITH LOCAL, STATE AND  
FEDERAL REGULATIONS.

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assume responsibility for the suitability  
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