

CARBON DIOXIDE, REFRIGERATED LIQUID

MSDS Number

CGYHJ

National Stock Number

6830-00N043684

Product Name

CARBON DIOXIDE, REFRIGERATED LIQUID

Manufacturer

AIRGAS

Product Identification

Product ID: CARBON DIOXIDE, REFRIGERATED LIQUID

MSDS Date: 01/01/1995

FSC: 6830

NIIN: 00N043684

MSDS Number: CGYHJ

Responsible Party

AIRGAS

100 MATSONFORD RD SUITE 550

RADNOR , PA 19087-4579

US

Emergency Phone: 800-424-9300 (CHEMTREC)

Info Phone: 610-687-5233

Cage: AIRGA

Contractor

AIRGAS INC

WAYNE, PA 19087

US

215-687-5253

Cage: OMN39

Ingredients

TREAT SYMPTOMATICALLY & SUPPORTIVELY & GET MED

RTECS: 9999999ZZ

CONTAINMENT METH, I.E. COMPRESSED GAS CYLS, BULK

RTECS: 9999999ZZ

TIGHTLY CLOSED CONTAINER WHICH IS UNABLE TO VENT

RTECS: 9999999ZZ

AT HIGH CONCS IN

RTECS: 9999999ZZ

MAY CAUSE IRRIT. LIQ/SOLID MAY CAUSE FROSTBT

RTECS: 9999999ZZ

UNLIKELY. IF LIQ/SOLID IS SWALLOWED, FROSTBT DMG OF

RTECS: 9999999ZZ

IT HAS BEEN REPORTED THAT PERS MAY TOLERATE 1.5% IN

RTECS: 9999999ZZ

BUT CALCIUM/PHOSPHORUS METABOLISM MAY BE AFFECTED

RTECS: 9999999ZZ

PROGRESSIVELY FALLING. AT 2% CONC, DEEPENED RESP

RTECS: 9999999ZZ

NOTED. IT HAS, HOWEVER, BEEN DEMONSTRATED THAT

RTECS: 9999999ZZ

LEVELS. REPRO EFTS HAVE BEEN REPORTED IN ANIMALS.

RTECS: 9999999ZZ

NO DATA AVAILABLE. FOR MORE

RTECS: 9999999ZZ

USE, GENTLY WRAP AFFECTED PART IN BLANKETS.

RTECS: 9999999ZZ

IS BEING WARMED. ALLOW CIRCULATION TO RETURN

RTECS: 9999999ZZ

OINTMENT INTO EYES W/OUT DOING SO UNDER MED ADVICE.

RTECS: 9999999ZZ

IMMED. IF TISS NOT FROZEN, WASH W/LGE AMTS OF WATER

RTECS: 9999999ZZ

LIDS. IF VICTIM CANNOT TOLERATE LIGHT, PROTECT EYES

RTECS: 9999999ZZ

CARBON DIOXIDE

CAS: 124-38-9

RTECS: FF6400000

Fraction By Weight: >99.5%

OSHA PEL5000 PPM

ACGIH TLV: 5000 PPM/30000 STEL

APPLIED MAY FREEZE & COULD DISABLE OPERATION OF

RTECS: 9999999ZZ

AVOID BREATHING VAPORS; KEEP UPWIND. CONSIDER

RTECS: 9999999ZZ

EVEN WHEN THERE IS SUFFICIENT OXYGEN

RTECS: 9999999ZZ

MAY CAUSE ADVERSE EFTS BY INTERFERING W/ITS NORM

RTECS: 9999999ZZ

CONCS RSLTS IN HYPOVENTILATION RSLTG IN RESP

RTECS: 9999999ZZ

EXPOS ARE SUFFICIENT. REPRO EFTS HAVE BEEN REPORTED

RTECS: 9999999ZZ

LIQ/SOLID MAY CAUSE FROSTBT W/REDNESS, TINGLING &

RTECS: 9999999ZZ

Hazards

LD50 LC50 Mixture:NONE SPECIFIED BY MANUFACTURER.

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES

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

Health Hazards Acute and Chronic:ACUTE:INHAL:40,000 PPM (4%) IMMEDIATELY DANGEROUS TO LIFE/HLTH (NIOSH). VERY POTENT CEREBRAL VASODILATOR. IN SOLID/LIQ FORM IT IS VERY VOLATILE, READILY RELEASING GAS. AT CONCS FROM 2-10% IT MAY CAUSE ACIDIC TASTE, DYSPNEA, HDCH, VERTIGO, NAUSEA, LABORED BREATHING, WEAK, DROWSY, MENTAL CONFUSION & INCREASE IN BLOOD PRESSURE, (EFFECTS OF OVEREXPOSURE)

Explanation of Carcinogenicity:NOT RELEVANT.

Effects of Overexposure:HEALTH HAZARD: PULSE & RESPIRATORY RATE. EXPOSURE TO 10% FOR FEW MINUTES HAS BEEN REPORTED TO CAUSE VISUAL DISTURBANCE, TINNITUS, TREMORS, PROFUSE PERSPIRATION, RESTLESSNESS, PARESTHESIA, GENERAL FEELING OF DISCOMFORT, LOSS OF CONSCIOUSNESS & COMA. CONCENTRATIONS OF 25-30% MAY CAUSE COMA & CONVULSIONS WITHIN 1 MINUTE. (INGESTION 4)

Medical Condition Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

First Aid

First Aid:INHALATION: REMOVE TO FRESH AIR IMMEDIATELY. IF BREATHING STOPPED, GIVE ARTIFICIAL RESPIRATION. MAINTAIN AIRWAY & BLOOD PRESSURE & ADMINISTER OXYGEN IF AVAILABLE. KEEP WARM & AT REST. TREAT SYMPTOMATICALLY & SUPPORTIVELY. ADMINISTRATION OF OXYGEN SHOULD BE PERFORMED BY QUALIFIED PERSONS. GET MEDICAL ATTENTION IMMEDIATELY. SKIN: GET MEDICAL ATTENTION. IF CASE OF FROSTBITE, WARM SKIN IN WARM WATER AT

TEMP NOT GREATER THAN 107F. IF WATER IS NOT AVAILABLE/IMPRACTICAL TO (ING 18)

Fire Fighting

Extinguishing Media:USE MEDIA SUITABLE FOR SURROUNDING FIRE .
Fire Fighting Procedures:WEAR NIOSH APPROVED SCBA & FULL PROTECTIVE EQUIP .
MOVE CONTAINER FROM FIRE AREA IF POSSIBLE. STAY AWAY FROM STORAGE TANK ENDS.
COOL FIRE-EXPOSED CONTAINERS WITH WATER (SUPPLEMENTARY DATA)
Unusual Fire/Explosion Hazard:PRODUCT HAS NEGLIGIBLE FIRE HAZARD WHEN EXPOSED TO HEAT/FLAME, & ITSELF IS BROADLY USED AS FIRE EXTINGUISHING AGENT. PRIMARY HAZARD OF EXPOSURE IS PRESENTED BY PRODUCT'S (ING 24)

Accidental Release

Spill Release Procedures:DO NOT TOUCH SPILLED MATERIAL. STOP LEAK IF YOU CAN DO SO WITHOUT RISK. KEEP UNNECESSARY PEOPLE AWAY; ISOLATE HAZARD AREA AND DENY ENTRY. VENTILATE CLOSED SPACES BEFORE ENTERING.
Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

Handling

Handling and Storage Precautions:STORE AWAY FROM INCOMPATIBLE SUBSTANCES. DO NOT STORE IN SUBSURFACE OR CLOSED AREAS. STORE IN ACCORDANCE WITH 29 CFR 1910.101.
Other Precautions:DO NOT PERMIT PHYSICAL DAMAGE/OVERHEATING OF CONTAINERS. CONTENTS UNDER PRESSURE; CONTAINERS MAY RUPTURE VIOLENTLY & TRAVEL A CONSIDERABLE DISTANCE. CONTACT OF LIQUEFIED GASES WITH WATER MAY CAUSE VIOLENT EXPLOSION DUE TO RAPID TEMPERATURE FLUCTUATIONS.

Exposure Controls

Respiratory Protection:FOR IMMEDIATE DANGEROUS TO LIFE CONDITIONS: NIOSH APPROVED SCBA WITH FULL FACEPIECE OPERATED IN POSITIVE PRESSURE-DEMAND/OTHER POSITIVE PRESSURE MODE. NIOSH APPROVED SUPPLEMENTARY-AIR RESPIRATOR WITH FULL FACEPIECE & OPERATED IN PRESSURE-DEMAND/OTHER POSITIVE PRESSURE MODE IN COMBINATION WITH AUXILIARY SCBA.
Ventilation:PROVIDE GENERAL DILUTION VENTILATION TO MEET PUBLISHED EXPOSURE LIMITS.
Protective Gloves:COLD INSULATING GLOVES.
Eye Protection:ANSI APPROVED CHEMICAL WORKERS GOGGLES .
Other Protective Equipment:ANSI APPROVED EMERGENCY EYEWASH & DELUGE SHOWER .
IF POSSIBLE, WEAR APPROPRIATE PROTECTIVE EQUIPMENT & CLOTHING TO PREVENT SKIN FREEZING.
Work Hygienic Practices:CONTACT LENSES SHOULD NOT BE WORN.
Supplemental Safety and Health
MP: VARIES WITH PRESSURE & TAKES PLACE ONLY WITH PRESSURE AT GREATER THAN 75.1 PSIA. MP @ 75.1 PSIA: -70F, -57C. APPEARANCE/ODOR: ACIDIC UPON CONTACT WITH MOISTURE. CAN CAUSE BURNING SENSATION IN NOSE. FIRE FIGHT PROCEDURE: FROM SIDE UNTIL WELL AFTER FIRE IS OUT. APPLY WATER AS FAR DISTANCE AS POSSIBLE. DO NOT USE WATER DIRECTLY ON MATERIAL, AS WATER (ING 2)

Chemical Properties

Melt/Freeze Point:MP/F.P Text:SUPPLEMENTARY DATA
Vapor Pressure:853 PSIA
Specific Gravity:1.522
Solubility in Water:SOLUBLE
Appearance and Odor:NON-FLAMMABLE COLORLESS GAS, WITH SLIGHT ACIDIC TASTE & SMELL. FORMS CARBONIC (SUPPLEMENTARY DATA)

Stability

Stability Indicator/Materials to Avoid:YES
ACRYLALDEHYDE, BARIUM PEROXIDE, CESIUM OXIDE & DIETHYL MAGNESIUM. FOR MORE DETAILED LIST CONTACT NEHC .
Stability Condition to Avoid:STABLE UNDER NORMAL TEMPERATURES AND PRESSURES.
Hazardous Decomposition Products:TEMPERATURES ABOVE 1700C MAY CAUSE DECOMPOSITION AND THE RELEASE OF OXYGEN AND HIGHLY TOXIC CARBON MONOXIDE.

Disposal

Waste Disposal Methods:OBSERVE ALL FEDERAL, STATE AND LOCAL REGULATIONS WHEN STORING OR DISPOSING OF THIS SUBSTANCE. FOR ASSISTANCE, CONTACT THE DISTRICT DIRECTOR OF THE ENVIRONMENTAL PROTECTION AGENCY.

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