

AIR PRODUCTS AND CHEMICALS, INC. -- CARBON DIOXIDE -- 4210-00-134-8961

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

Product ID:CARBON DIOXIDE

MSDS Date:03/01/1993

FSC:4210

NIIN:00-134-8961

MSDS Number: BVTVP

=== Responsible Party ===

Company Name:AIR PRODUCTS AND CHEMICALS, INC.

Address:7201 HAMILTON BLVD

City:ALLENTOWN

State:PA

ZIP:18195-1501

Country:US

Info Phone Num:215-481-6311 OR 215-481-7711

Emergency

Phone Num:800-523-9374 (800-322-9092 IN PA)

CAGE:00742

=== Contractor Identification ===

Company Name:AIR PRODUCTS AND CHEMICALS INC

Address:7201 HAMILTON BLVD

Box:City:ALLENTOWN

State:PA

ZIP:18195-1501

Country:US

Phone:800-345-3148/ 800-752-1597

CAGE:00742

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

Ingred Name:CARBON DIOXIDE

CAS:124-38-9

RTECS #:FF6400000

Fraction by Wt: >99%

Other REC Limits:NONE RECOMMENDED

OSHA PEL:5000 PPM

ACGIH TLV:5000PPM/30000STEL;94

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

LD50 LC50 Mixture:NOT GIVEN.

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

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

Health Hazards Acute and Chronic:INHAL:ASPHYXIAN. STIMULATES RESP & THEN CAUSES RESP DEPRESSION. HI CONC RESULTS IN NARCOSIS. CONCEN 10% OR MORE CAN PRODUCE UNCONSCIOUSNESS OR DEATH. EYE:CONTACT W/LIQ OR COLD VAP CAN CAUSE FREEZING OF TISSUE. SKIN:CONTACT W/LIQ OR COLD VAP CAN CAU

SE FROSTBITE. CHRONIC EFFECTS:NONE.

Explanation of Carcinogenicity:PER MSDS:CARBON DIOXIDE IS NOT LISTED BY NTP, OSHA OR IARC.

Effects of Overexposure:ASPHYXIATION (SUFFOCATION). OVEREXPOSURE MAY CAUSE DAMAGE TO RETINAL GNLION CELLS AND CENTRAL NERVOUS SYSTEM. HEADACHE, SWEATING, RAPID BREATHING, INCREASED HEARTBEAT, SHORTNESS OF BREATH, DIZZINESS, MENTAL DEPRESSION, VISUAL DISTURBANCES, AND SHAKING.

Medical Cond Aggravated by Exposure:NONE. TARGET ORGANS:CENTRAL NERVOUS SYSTEM.

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

First Aid:INHAL:MOVE TO FRESH AIR. IF NOT BREATHING ADMINISTER ARTIFICIAL RESP. IF BREATHING DIFFICULT ADMINISTER OXYGEN. OBTAIN PROMPT MED ATTN. EYE:GENTLY FLUSH W/LUKEWARM WATER. OBTAIN MED ATTN IMMED. SKIN:I MMED WARM AREA W/LUKEWARM WATER NOT TO EXCEED 107F.

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

Flash Point:NOT APPLICABLE.

Autoignition Temp:Autoignition Temp Text:NOTF LA

Lower Limits:NON-FLAMM

Upper Limits:NON-FLAMM

Extinguishing Media:NON-FLAMM.DOESN'T SUPPORT COMBUSTION.IT'S EXT AGENT FOR CLASS B & C FIRES.USE EXT MEDIA APPROPRIATE FOR SURROUNDING FIRE

Fire Fighting Procedures:EVACUATE PERSONNEL.W/O RISK REMOVE CYL FROM FIRE AREA OR COOL W/WATER. SELF-CONTAINED BREATHING APPARATUS MAY BE REQUIRED FOR RESCUE WORKERS.

Unusual Fire/Explosion Hazard:UPON EXPO TO INTENSE HEAT/FLAME CYL WILL VENT RAPIDLY &/OR RUPTURE VIOLENTLY.MOST CYL ARE DES

IGNED TO VENT

CONTENTWS WHEN EXPO TO HI TEMP.PRESSURE SEE SUPPLEMEN

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

Spill Release Procedures:REMOVE ALL PERSONNEL FROM AREA.INCREASE VENTIL TO RELEASE AREA & MONITOR OXY LEVEL.USE APPROPRIATE PROTECTIVE EQPMT (SCBA).IF LEAK FROM CYL OR CYL VALVE CALL AIR PRODUCTS 800-752-1597.IF LEAK IN USER SYS CLS CYL VALVE & VENT PRESSURE BEFORE REPAIRS.

Neutralizing Agent:SMALL AMTS MAY BE DIPOSED OF BY REACTING W/MILD

BASE.

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

Handling and Storage Precautions:STORE UPRIGHT IN WELL-VENTI,SECURE AREA,PROTECTED FROM WEATHER,TEMP NOT EXCEED 125F,AWAY FROM HEAVILY TRAVELED AREA/EMERG EXIT.

Other Precautions:AVOID AREAS W/SALT OR OTHER CORR MATL PRESENT.KEEP GOOD INVENTORY RECORDS;USE 1ST IN 1ST OUT.USE SUITABLE HAND TRUCK FOR MOVEMENT.USE ADJUSTABLE STRAP WRECH TO REMOVE OVERTIGHT/RUSTED CAPS.USE PROPER CGA CONNECTIONS & P
ROPER PIPE/EQPMT.

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

Respiratory Protection:GENERAL USE:NONE REQUIRED. EMERGENCY USE:SELF-CONTAINED BREATHING APPARATUS (SCBA) OR POSITIVE PRESSURE AIRLINE W/MASK & ESCAPE PACK ARE TO BE USED IN OXYGEN DEFICIENT ATM. AIR PRUFYING RESP WILL NOT PROVIDE PROTECTION.

Ventilation:PROVIDE VENTILATION &/OR LOC EXHAUST TO PREVENT ACCUMULATION OF CARBON DIOXIDE CONCEN ABOVE 5000PPM.

Protective Gloves:NONE SPECIFIED.

Eye P

rotection:SAFETY GLASSES.

Other Protective Equipment:SAFETY SHOES & LEATHER WORK GLOVES WHEN HANDLING CYCLINDERS.

Work Hygienic Practices:FOLLOW GOOD HYGIENE PRACTICES.

Supplemental Safety and Health

GAS DEN:0.1144LB/FT3 @70F. HAZ:IN CNTNR CAN BUILD UP DUE TO HEAT & MAY RUPTURE IF PRESSURE RELIEF DEVICES SHOULD FAIL TO FUNCTION.

SORE/HANDLE COMPRESSED GASES IAW COMPRESSED GAS

ASSOC(703-979-0900)PAM PHLET CGA P-1.COMPRESSED GAS CYL SHALL NOT BE REFILLED EXCEPT BY QUALIFIED PROD

UCERS OF COMPRESSED GASES(FED
LAW).

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

HCC:G3

Boiling Pt:B.P. Text:-109F,-79C

Vapor Pres:838PSIG

Spec Gravity:1.522,1ATM 70F

Solubility in Water:SLIGHT (0.90 @ 68F)

Appearance and Odor:COLORLESS AND ODORLESS.SLIGHT ACID GAS.SLIGHT
PUNGENT ODOR & BITING TASTE.

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

Stability Indicator/Materials to Avoid:YES

NONE.

Stability Condition to Avoid:NONE.

Hazardous

Decomposition Products:NONE.

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

Waste Disposal Methods:RETURN CYL/UNUSED MATL TO SUPPLIER.DO NOT
ATTEMPT TO DISPOSE OF UNUSED MATL.ENSURE CYL VALVE IS PROPERLY
CLSD,VALVE OUTLET CAP REINSTALLED & VALVE PROTECTION CAP SECURED
BEFORE SHIPPING.EMERG:SLOWLY D ISCHARGE GAS TO ATM IN WELL
VENTI/OUTDOORS.

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