

ANSUL FIRE PROTECTION -- CARBON DIOXIDE -- 6830-01-303-4386

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

Product ID:CARBON DIOXIDE
MSDS Date:05/15/1991
FSC:6830
NIIN:01-303-4386
MSDS Number: BQYNS
=== Responsible Party ===
Company Name:ANSUL FIRE PROTECTION
Address:ONE STANTON STREET
City:MARINETTE
State:WI
ZIP:54143-2542
Country:US
Info Phone Num:715-735-7411
Emergency Phone Num:715-735-7411
Preparer's Name:
e:SAFETY & HEALTH DEPT
CAGE:03670
=== Contractor Identification ===
Company Name:ANSUL INC
Address:ONE STANTON STREET
Box:City:MARINETTE
State:WI
ZIP:54143-2542
Country:US
Phone:715-735-7411
CAGE:03670

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

Ingred Name:CARBON DIOXIDE
CAS:124-38-9
RTECS #:FF6400000
Fraction by Wt: 100%
Other REC Limits:NONE SPECIFIED
OSHA PEL:5000 PPM
ACGIH TLV:5000PPM/30000STEL;93

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

==

LD50 LC50 Mixture:ORAL LD50 (RAT) IS UNKNOWN.

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

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

Health Hazards Acute and Chronic:ACUTE:PHYSICAL CONTACT WITH LIQUEFIED/SOLID CARBON DIOXIDE CAN CAUSE FROSTBITE OR FREEZE BURNS.INHALATION OF VAPOR IN CONCENTRATION OF 3-5% BY VOLUME IN AIR CAUSES INCREASED RESPIRATION & HEADACHE;8-15% CAUSES HEADACHE,NAUSEA,VOMITING & UNCONSCIOUSNESS.HIGHER CONCENTRATION MAY LEAD TO C

OMA & DEATH.CHRONIC:UNKNOWN.

Explanation of Carcinogenicity:THIS PRODUCT IS NOT LISTED BY NTP, IARC, OR OSHA

Effects of Overexposure:VAPOR IS HEAVIER THAN AIR AND CAN CAUSE SUFFOCATION BY REDUCING AVAILABLE OXYGEN FOR BREATHING. MAY CAUSE DIZZINESS, IMPAIRED COORDINATION, REDUCED MENTAL ACUITY, HEADACHE, DIFFICULTY BREATHING, DROWSINESS, DEPENDING ON LENGTH OF EXPOSURE AND CONCENTRATIONS.

Medical Cond Aggravated by Exposure:RESPIRATORY PROBLEMS

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

First Aid:GET MEDICAL ATTENTION. INHALATION:REMOVE TO FRESH AIR.PROVIDE CPR/OXYGEN IF NEEDED. EYES:IMMEDIATELY FLUSH WITH PLENTY OF TEPID WATER/STERILE SALINE. SKIN:FLUSH WITH LUKEWARM WATER.DO NOT USE HOT WATER. PROMPT MEDICAL ATTENTION IS MANDATORY IN ALL CASES OF OVEREXPOSURE TO CO2. RESCUE PERSONNEL SHOULD BE EQUIPPED WITH SELF CONTAINED BREATHING APPARATUS.

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

Flash Point:NONE
Extinguishing Media:FIRE EXTINGUISHING AGENT. USE MEDIA APPROPRIATE FOR SURROUNDING FIRE.

Fire Fighting Procedures:HMIS: FIGHTERS SHOULD USE NIOSH APPROVED SCBA & FULL PROTECTIVE EQUIPMENT WHEN FIGHTING FIRE. USE WATER SPRAY TO COOL NEARBY CONTAINERS EXPOSED TO FIRE.

Unusual Fire/Explosion Hazard:THOUGH GAS CYLINDERS ARE EQUIPPED WITH PRESSURE AND TEMPERATURE RELIEF DEVICES, THEY SHOULD BE REMOVED FROM HIGH TEMPERATURES OR FIRE TO AVOID RISK OF RUPTURE.

=====

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

Spill Release Procedures:EVACUATE AREA. USE APPROPRIATE PROTECTIVE EQUIPMENT. PROVIDE VENTILATION TO AREA & AVOID CONTACT WITH SOLID/LIQUID OR INHALATION OF VAPOR. VALVE OFF CARBON DIOXIDE SUPPLY FROM LEAKING OR BROKEN COMPONENTS. ELIMINATE FLAMES, HOT SURFACES.

Neutralizing Agent:NOT APPLICABLE.

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

Handling and Storage Precautions:STORE IN A COOL (UNDER 130F), DRY,

WELL VENTILATED PLACE. DO NOT INSTALL STORAGE VESSELS IN SUB-SURFACE, CLOSED AREA OR NEAR HEAT/FLAME.

Other Precautions:AVOID PROLONGED OR REPEATED BREATHING OF VAPOR. AVOID CONTACT WITH EYES OR SKIN. USE WITH ADEQUATE VENTILATION. SECURE ALL CYLINDERS.

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

Respiratory Protection:WHEN EXPOSED ABOVE TLV, WEAR NIOSH APPROVED POSITIVE PRESSURE AIR LINE RESPIRATOR WITH FULL FACE PIECE AND ESCAP

E AIR SUPPLY OR SELF CONTAINED BREATHING APPARATUS SHOULD BE AVAILABLE FOR EMERGENCY USE .

Ventilation:SUFFICIENT TO PREVENT ACCUMULATION ABOVE TLV. LOCAL EXHAUST SHOULD BE LOCATED NEAR THE FLOOR.

Protective Gloves:INSULATED AND COLD RESISTANT

Eye Protection:SAFETY GOGGLES WITH OPTIONAL FACE SHIELD

Other Protective Equipment:EYE WASH STATION AND SAFETY SHOWER. INDUSTRIAL-TYPE WORK CLOTHING AND APRON AS REQUIRED.

Work Hygienic Practices:OBSERVE GOOD PERSONAL HYGIENE PRACTICES AND

RECOMMENDED PROCEDURES.

Supplemental Safety and Health

KEY2:KT

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

HCC:G3

Boiling Pt:B.P. Text:SUBLIMES

Decomp Temp:Decomp Text:SUBLIMES

Vapor Pres:42928 @20C

Vapor Density:1.5

Spec Gravity:1.98

Evaporation Rate & Reference:GAS AT ROOM TEMPERATURE

Solubility in Water:88% @ 20C

Appearance and Odor:COLORLESS GAS - NO ODOR

Percent Volatiles by Volume:100

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

Stabi

lity Indicator/Materials to Avoid: YES

REACTS VIOLENTLY WITH STRONG BASES, ALKALI METALS

Stability Condition to Avoid: FLAMES, HIGH TEMPERATURE (CAUSE OVER PRESSURE)

Hazardous Decomposition Products: NONE

Conditions to Avoid Polymerization: WILL NOT OCCUR

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

Waste Disposal Methods: CONTAMINATED AREA SHOULD BE VENTILATED THOROUGHLY. SOLID CARBON DIOXIDE SHOULD BE REMOVED OUT OF DOORS AND ALLOWED TO SUBLIMATE. DISPOSAL SHOULD BE IN COMPLIANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

Disclaimer (provided with this information by the compiling agencies): This information is formulated for use by elements of the Department of Defense. The United States of America in no manner whatsoever, expressly or implied, warrants this information to be accurate and disclaims all liability for its use. Any person utilizing this document should seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation.