

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 Na

me: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;8-1 5% CAUSES
HEADACHE,NAUSEA,VOMITING & UNCONSCIOUSNESS.HIGHER CONCENTRATION MAY
LEAD TO
COMA & 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, DROWS INESS, DEPENDING ON LENGTH OF EXPOSURE
AND CONCENTRATIONS.
Medical Cond Aggravated by Exposure:RESPIRATORY PROBLEMS

===== Fir
st 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
WATE R. 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: IGHTERS 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 OR 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 ESCA

PE 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 =====

Stab

ility 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 SHOU
LD BE IN COMPLIANCE WITH ALL
LOCAL, STATE AND FEDERAL REGU LATIONS.

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 responsibi
lity for the suitability of this information to their
particular situation.