

ANSUL FIRE PROTECTION, WORMALD U.S.INC. -- CARBON DIOXIDE -- 4810-01-286-9764
===== Product Identification =====

Product ID:CARBON DIOXIDE
MSDS Date:01/12/1996
FSC:4810
NIIN:01-286-9764
MSDS Number: CDGYC
=== Responsible Party ===
Company Name:ANSUL FIRE PROTECTION, WORMALD U.S.INC.
Address:ONE STANTON STREET
City:MARINETTE
State:WI
ZIP:54143-2542
Country:US
Info Phone Num:715-735-7411...FAX 715-7
32-3477
Emergency Phone Num:715-735-7411...TOM LAWSON EXT 580
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
Company Name:NINETECH INTL INC
Address:1064 ROSELLE PL
Box:City:WOODMERE
State:NY
ZIP:11598
Country:US
Phone:516-887-7943
CAGE:0GKF8

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

Ingred Name:CARBON DIOXIDE
CAS:124-38-9
RTECS #:FF64000

00

Fraction by Wt: 100%

Other REC Limits:NONE SPECIFIED

OSHA PEL:5000 PPM

ACGIH TLV:5000PPM/30000STEL;96

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

LD50 LC50 Mixture:PRODUCT'S LD50 (ORAL RAT) WAS NOT STATED

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

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

Health Hazards Acute and Chronic:ACUTE-CONTACT WITH COLD VAPOR/SOLID
CARBON DIOXIDE CAN CAUSE EYE/SKIN FROSTBITE AND FREEZE BURNS.
ASPHYXIAN BY INHA

LATION & HEAVIER THAN AIR. CAN CAUSE SUFFOCATION

BY REDUCING OXYGEN AVAILABLE. BREATHING HIGH CONCENTRATIONS WILL
CAUSE LIGHTEADEDNESS, SHORTNESS OF BREATH. INGESTION IS UNLIKELY.
CHRONIC-UNKNOWN.

Explanation of Carcinogenicity:MFR GAVE THE ABOVE LISTINGS ON THE MSDS
BUT NO OTHER COMMENTS WERE RECORDED.

Effects of Overexposure:DIZZINESS, IMPAIRED COORDINATION, REDUCED
MENTAL ACUITY, HEADACHES, TINNITUS, DIFFICULTY BREATHING, AND/OR
DROWSINESS DEPENDING ON LENGTH OF EXPO
SURE & CONCENTRATIONS.

Medical Cond Aggravated by Exposure:RESPIRATORY PROBLEMS

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

First Aid:IF ANY IRRITATION PERSISTS OR SEVERE, GET MEDICAL ATTENTION.

TREAT FOR FROSTBITE IF NECESSARY. EYE-FLUSH W/WATER FOR 15 MIN.

SKIN-WASH W/SOAP & WATER. INHALED-REMOVE FROM CONTAMINATED AREA. IF
SYMPTOMS OCCUR, CONSULT MEDICAL PERSONNEL. AIDOR RESTORE BREATHING
AS NEEDED. INGESTED-MFR GAVE NO INFORMATION ON MSDS.

=====

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

Flash Point:NONE

Extinguishing Media:THIS IS AN EXTINGUISHING AGENT. HMIS:USE
EXTINGUISHING MEDIA APPROPRIATE FOR SURROUNDING FIRE.

Fire Fighting Procedures:NONE - THIS IS AN EXTINGUISHING AGENT.

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 PERSONNEL. VENTILATE TO OUTSIDE ATMOSPHERE. COOL OR REMOVE HOT, METAL SURFACES OR SOURCE OF NON-EXTINGUISHED FLAMES.

Neutralizing Agent:MFR GAVE NO INFORMATION ON MSDS.

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

Handling and Storage Precautions:STORE IN A CEAN, DRY, WELL-VENTILATED AREA AWWAY FROM HEAT ABOVE 120F. STORE AS A COMPRESSED GAS IN DOT APPROVED VESSELS.

Other Precautions:IF NOT ATTACHED TO A SYSTEM, CYLINDER/CARTRIDGE MUST BE SAFETY CAPPED TO PROTECT AGAINST VIOLENT VELLEL MOVEMENT OR FORCE OF EXCAPING GAS IF VALVE IS ACTUATED OR SEAL IS PUNCTURED. NOTE INCOMPATIBILIT Y INFORMATION.

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

Respiratory Protection:NOT NORMALLY NECESSARY IF CONTROLS ARE ADEQUATE. IF TLV IS EXCEEDED OR IF EXPOSURE IS PROLONGED, A SELF-CONTAINED BREATHING APPARATUS IS RECOMMENDED.

Ventilation:MECHANICAL (GENE RAL) VENTILATION IS RECOMMENDED W/LOCAL EXHAUST RECOMMENDED FOR CONFINED SPACES.

Protective Gloves:FOR CONTACT W/DRY ICE

Eye Protection:CHEMICAL GOGGLES + FACE SHIELD

Other Protective Equipment:PROTECTIVE CLOTHING FOR CONTACT W/DRY ICE.

Work Hygienic Practices:MFR:?. HMIS:USE GOOD CHEMICAL HYGIENE PRACTICES. AVOID CONTACT IF AT ALL POSSIBLE. WASH THOROUGHLY AFTER HANDLING.

Supplemental Safety and Health

P/N ON CTFD: 17284; P/N GIVEN BY DDRV ON TECH SUPPORT SHEET: 17492.

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

HCC:G3

Boiling Pt:B.P. Text:SUBLIMES

Vapor Pres:42928 MMHG

Vapor Density:1.5

Spec Gravity:1.98

Evaporation Rate & Reference:GAS AT ROOM TEMPERATURE

Solubility in Water:APPRECIABLE

Appearance and Odor:COLORLESS GAS WITH NO ODOR.

Percent Volatiles by Volume:100

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

Stability Indicator/Materials to Avoid:YES

REACTS VIGOROUSLY W/(AL+NA2O2), CS2O, LI, K, MG(C2H5) 2, (MG+NA2O

),

KHC2, NA, NA2C2, NAK, TI

Hazardous Decomposition Products:NONE

Conditions to Avoid Polymerization:WILL NOT OCCUR.

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

Waste Disposal Methods:DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL ENVIRONMENTAL 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.