

ANSUL FIRE PROTECTION, WORMALD U.S.INC. -- CARBON DIOXIDE,AGF 0222,55022 --
4210-01-120-2708

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

Product ID:CARBON DIOXIDE,AGF 0222,55022
MSDS Date:01/25/1993
FSC:4210
NIIN:01-120-2708
MSDS Number: BYCBF
=== 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 Phon
e Num:715-735-7411...FAX 715-732-3477
Emergency Phone Num:715-735-7411/800-424-9300(CHEMTREC)
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

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

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

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===== Hazards Identification =====
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LD50 LC50 Mixture:TLV IS 5000 PPM.

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

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

Health Hazards Acute and Chronic:TARGET ORGANS:LUNGS, HEART, CNS, EYES, SKIN. ACUTE- CONTACT WITH LIQUID CAN CAUSE SKIN FROSTBITE. GAS MAY CAUSE EYE IRRITATION. ASPHYXIANT. INHALATION MAY CAUSE RESPIRATORY ACIDOSIS. HIGH CONCENTRATIONS MAY CAUSE RAPID CIRCULATORY

INSUFFICIENCY LEADING TO DEATH. INGESTION IS UNLIKELY TO OCCUR. CHRONIC- UNKNOWN.

Explanation of Carcinogenicity:NONE

Effects of Overexposure:EYE OR SKIN FROSTBITE AND FREEZE BURNS, HEADACHE, DROWSINESS, DIZZINESS, STINGING OF THE EYES, NOSE AND THROAT, EXCITATION, RAPID BREATHING AND HEART RATE, EXCESS SALIVATION, SHORTNESS OF BREATH, MUSCULAR WEAKNESS, RINGING IN THE EAR, UNCONSCIOUSNESS, COMA, NAUSEA, VOMITING, WATERY EYES (FORMATION OF WEAK CARBONIC ACID)

Medical Con

d Aggravated by Exposure:PERSONNEL WITH PRE-EXISTING CHRONIC RESPIRATORY DISEASES OR HEART DISORDERS SHOULD REFRAIN FROM BREATHING EXCESSIVE CARBON DIOXIDE.

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===== First Aid Measures =====
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First Aid:INHALATION:REMOVE TO FRESH AIR. PROVIDE CPR/OXYGEN IF NEEDED. EYES:IMMEDIATELY FLUSH WITH WATER FOR AT LEAST 15 MINUTES. SEE AN OPHTHALMOLOGIST, URGENTLY. SKIN:FLUSH WITH WARM WATER (NOT TO EXCEED 107 F). PROMPT MEDICAL ATTENTION IS MANDATORY

IN ALL CASES

OF OVEREXPOSURE TO CO2. RESCUE PERSONNEL SHOULD BE EQUIPPED WITH SELF CONTAINED BREATHING APPARATUS. ORAL:NOT LIKELY TO OCCUR.

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===== Fire Fighting Measures =====
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Flash Point:NONE

Extinguishing Media:CARBON DIOXIDE CANNOT CATCH FIRE. USE WATER FOG, CARBON DIOXIDE, FOAM, OR DRY CHEMICAL FOR SURROUNDING FIRE.

Fire Fighting Procedures:WEAR FIRE FIGHTING PROTECTIVE EQUIPMENT AND A NIOSH-APPROVED SELF CONTAINED BREATHING APPARATUS. COOL

FIRE

EXPOSED CONTAINERS WITH WATER SPRAY. EVACUATE AREA.

Unusual Fire/Explosion Hazard:CONTAINER MAY RUPTURE DUE TO HEAT OF FIRE.

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

Spill Release Procedures:LIQUID CARBON DIOXIDE WILL FORM SOLID CO2 (DRY ICE) WHEN RELEASED TO ATMOSPHERIC PRESSURE. THE AREA SHOULD BE VENTILATED. CLEAN UP PERSONNEL SHOULD WEAR SELF-CONTAINED BREATHING APPARATUS WITH FULL FACE MASK AND HEAVY PROTECTIVE CLOTHING.

Neutralizing Agent:NOT RELEVANT

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

Handling and Storage Precautions:STORE IN A COOL, VENTILATED AREA. PROTECT FROM PHYSICAL DAMAGE. KEEP OUT OF REACH OF CHILDREN. DO NOT STORE ABOVE 120F.

Other Precautions:KEEP AWAY FROM SOURCES OF HEAT. CAUTION! CAN CAUSE RAPID SUFFOCATION DUE TO OXYGEN DEFICIENCY. USE WITH ADEQUATE VENTILATION. CO2 IS HEAVIER THAN AIR AND TENDS TO ACCUMULATE NEAR THE FLOOR IN CLOSED SPACES. READ ALL LABEL INSTRUCTIONS.

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

Respiratory Protection:NONE REQUIRED UNDER NORMAL USE. HOWEVER, NIOSH-APPROVED AIR-SUPPLIED RESPIRATORS ARE REQUIRED WHILE WORKING IN CONFINED SPACES WITH THIS PRODUCT. FOR EMERGENCIES, WEAR SELF CONTAINED BREATHING APPARATUS, OPERATED IN POSITIVE PRESSURE MODE.

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

Protective Gloves:INSULATED AND COLD RESISTANT NEOPRENE

Eye Protection:SAFETY GOGGLES

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

Work Hygienic Practices:OBSERVE GOOD PERSONAL HYGIENE PRACTICES AND RECOMMENDED PROCEDURES.

Supplemental Safety and Health

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

HCC:G3

NRC/State Lic Num:NOT RELEVANT

Boiling Pt:B.P. Text:SUBLIMES

Vapor Pres:42911 @68F

Vapor Density:1.5

Spec Gravity:1.

98
pH:ACIDIC
Viscosity:NOT RELEVANT
Evaporation Rate & Reference:NOT RELEVANT
Solubility in Water:88 ML/100ML @ 68F
Appearance and Odor:COLORLESS, ODORLESS GAS
Percent Volatiles by Volume:100

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

Stability Indicator/Materials to Avoid:YES
REACTIVE METALS (MAGNESIUM, ALUMINUM), MOIST CESIUM OXIDE, SODIUM
PEROXIDE + REACTIVE METALS
Stability Condition to Avoid:EXCESSIVE HEAT (ABOVE 120F)
Hazardous Decomposition Products:CAN
DECOMPOSE TO CARBON MONOXIDE AND
OXYGEN ABOVE 3092F (1700C).

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

Waste Disposal Methods:SLOWLY RELEASE INTO ATMOSPHERE OUTDOORS IF
PERMITTED. DISPOSAL SHOULD BE IN COMPLIANCE WITH ALL LOCAL, STATE
AND FEDERAL REGULATIONS.

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