

ANSUL FIRE PROTECTION, WORMALD U.S.INC. -- HALON 1301,FREON FE 1301,77803 --
4210-01-328-0239

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

Product ID:HALON 1301,FREON FE 1301,77803
MSDS Date:01/12/1996
FSC:4210
NIIN:01-328-0239
MSDS Number: CDYJD
=== 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 P
hone 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

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

Ingred Name:TRIFLUOROBROMOMETHANE (HALON 1301) (SARA 313) (CERCLA)
CAS:75-63-8
RTECS #:PA5425000
Fraction by Wt: >99%
Other REC Limits:NONE RECOMMENDED
OSHA PEL:1000 PPM
ACGIH TLV:1000 PPM; 9596
Ozone Depleting Chemical:1

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

LD50 LC50 Mixture:TLV IS 1000 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, CNS, EYES, SKIN.
ACUTE- CONTACT WITH LIQUID CAN CAUSE SKIN FROSTBITE. GAS MAY CAUSE
EYE IRRITATION. ASPHYXIANT. INHALATION MAY CAUSE CNS EFFECTS. HIGH

CONCENTRATIONS MAY CAUSE NAR COSIS, CARDIAC IRREGULARIRIES,
UNCONSCIOUSNESS OR EVEN DEATH. INGESTION IS NOT LIKLEY (GAS).
CHRONIC- UNKNOWN.

Explanation of Carcinogenicity:NONE

Effects of Overexposure:EYE OR SKIN FROSTBITE AND FREEZE BURNS,
HEADACHE, DROWSINESS, DIZZINESS, RAPID BREATHING, IRREGULAR HEART
RATE, SHORTNESS OF BREATH, MUSCULAR WEAKNESS, RINGING IN THE EAR,
UNCONSCIOUSNESS, COMA, DEATH

Medical Cond Aggravated by Exposure:PERSONNEL WITH PRE-EXISTING CHRONIC
RE

SPIRATORY DISEASES OR HEART DISORDERS SHOULD REFRAIN FROM
BREATHING EXCESSIVE GAS.

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

First Aid:GET MEDICAL HELP IF SYMPTOMS PERSIST. INHALED:REMOVE TO FRESH
AIR. PROVIDE CPR/OXYGEN IF NEEDED. EYES:IMMEDIATELY FLUSH WITH
WATER FOR 15 MINUTES. HOLD EYELIDS OPEN. SKIN:WASH WITH SOAP &
WATER. ORAL: NOT LIKELY SINCE THIS MATERIAL IS GAS AT ROOM
TEMPERATURE.

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

Flash Point:NONE

Lower Limits:NOT RELEVANT

Upper Limits:NOT RELEVANT

Extinguishing Media:THIS IS A FIRE EXTINGUISHING AGENT. 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:THOUGH GAS CYLINDERS ARE EQUIPPED WITH
PRESSURE RELIEF

DEVICES, THEY SHOULD BE REMOVED FROM FIRE TO AVOID
RISK OF RUPTURE. MAY FORM TOXIC/CORROSIVE GASES.

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

Spill Release Procedures:EVACUATE AREA. WEAR NIOSH-APPROVED
SELF-CONTAINED BREATHING APPARATUS. REMOVE OPEN FLAMES. VENTILATE
TO OUTSIDE ATMOSPHERE. STOP LEAK IF POSSIBLE. UNCONTROLLED RELEASES
SHOULD BE RESPONDED TO BY TRAIN ED PERSONNEL USING PRE-PLANNED
PROCEDURES.

Neutralizing Agent:NOT RELEVANT

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Handling and Storage
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Handling and Storage Precautions:STORE IN A COOL, WELL-VENTILATED PLACE AWAY FROM OPEN FLAMES AND INCOMPATIBLES. KEEP CYLINDERS SECURED AND UPRIGHT. KEEP OUT OF REACH OF CHILDREN.

Other Precautions:KEEP AWAY FROM SOURCES OF HEAT. USE WITH ADEQUATE VENTILATION. THIS GAS IS HEAVIER THAN AIR AND TENDS TO ACCUMULATE NEAR THE FLOOR IN CLOSED SPACES. READ ALL LABEL INSTRUCTIONS.

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Exposure Controls/Personal Protection
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Respiratory Protection:NONE REQUIRED UNDER NORMAL USE. HOWEVER, AIR-SUPPLIED RESPIRATORS ARE REQUIRED WHILE WORKING IN CONFINED SPACES WITH THIS PRODUCT. THE RESPIRATORY PROTECTION USE MUST CONFORM WITH OSHA RULES AS SPECIFIED IN 29 CFR 1910.134.

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

Protective Gloves:INSULATED NEOPRENE IF HANDLING LIQUID

Eye Protection:SAFETY GOGGLES RECOMMENDED

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

NOTE TO PHYSICIAN: INCREASED CARDIAC SENSITIVITY AND POSSIBLE ARRHYTHMIA MAY RESULT FROM OVEREXPOSURE. DO NOT ADMINISTER EPINEPHRINE OR OTHER STIMULATING DRUGS FOLLOWING OVEREXPOSURE UNLESS ABSOLUTELY NECESSARY. DO NOT ALLOW VICTIM TO EXERCISE UNTIL

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24 HOURS AFTER EXPOSURE. FREEZE BURNS CAN DEVELOP FOLLOWING EXPOSURE.

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Physical/Chemical Properties
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HCC:G3

NRC/State Lic Num:NOT RELEVANT

Boiling Pt:B.P. Text:-72F,-58C

Decomp Temp:Decomp Text:>900F,>482C

Vapor Pres:11048 @70F

Vapor Density:5.2

Spec Gravity:1.57 (LIQUID)

Viscosity:NOT RELEVANT

Evaporation Rate & Reference:NOT RELEVANT (GAS)

Solubility in Water:NEGLIGIBLE

Appearance and Odor:COLORLESS GAS - SWEET ODOR

Percent Volatiles by Vol

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

Stability Indicator/Materials to Avoid: YES

ACTIVE METALS AND FIRES INVOLVING METAL HYDRIDES

Stability Condition to Avoid: OVERHEATING CYLINDERS, TEMPERATURES ABOVE 900F

Hazardous Decomposition Products: CARBON MONOXIDE, CARBON DIOXIDE, HYDROGEN FLUORIDE AND HYDROGEN BROMIDE

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

Waste Disposal Methods: WASTE DISPOSAL MUST BE IN ACCORDANCE WITH LOCAL,

STATE AND FEDERAL REGULATIONS. RECYCLE OR REUSE IF POSSIBLE.

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