FSC: 6830
MSDS Date: 08/16/2004
MSDS Num: BVBWY
LIN: 00N047805
Product ID: REFRIGERANT 134A
MFN: 01
Responsible Party
Cage: 25827
Name:
Address: Tangshan Town, Huantai County
City: Zibo City, Shandong Province, China
Info Phone Number: 0086-533-8220546
Emergency Phone Number: 0086-533-8220545
Preparer's Name: Mr Jason Chen
Published: Y

Contractor Summary

Cage: 25827
Name: DONGYUE
Address: Tangshan Town, Huantai County
City: Zibo City, Shandong Province, China
Phone Number: 0086-533-8220546
Cage: 18873
Name: Shandong Dongyue Chemical CO., LTD
Address: Tangshan Town, Huantai County
City: Zibo City, Shandong Province, China
Phone Number: 0086-533-8220546

Ingredients

Name: ING 7: CIRCULATION. CONT W/LIQ MAY CAUSE FROSTbite. POLYALKYLENE GLYCOL
OilS MAY CAUSE EYE & SKIN IRRITATION.

Name: FIRST AID PROC: MD. NOTES TO MD: BECAUSE OF POSS DISTURBS OF CARDIAC
RHYTHM, CATECHOLAMINE DRUGS, SUCH AS

Name: ING 9: EPINEPHRINE, SHOULD BE CONSIDERED ONLY AS A LAST RESORT IN
LIFE-THREATENING EMERGENCIES.
Name: OTHER PREC: CAUSE FORMATION OF CHLORIDES, FLUORIDES OR PHOSGENE (FP N).

Name: VENT: SHOULD BE USED IN LOW PLACES.

Cas: 811-97-2
Name: ETHANE, 1,1,1,2-TETRAFLUORO-
% Wt: 100
OSHA PEL: N/K (FP N)
ACGIH TLV: N/K (FP N)

Name: MAY CONTAIN ONE OF INGREDIENTS 3 - 5.
OSHA PEL: N/K (FP N)
ACGIH TLV: N/K (FP N)

Cas: 9038-95-3
RTECS #: RR0550000
Name: OXIRANE METHYL-, POLYMER W/OXIRANE, MONOBUTYL ESTER; (POLYALKYLENE GLYCOL OIL)
% Wt: 0-5
OSHA PEL: N/K (FP N)
ACGIH TLV: N/K (FP N)

Name: POLYOL ESTER PLUS PHOSPHATE ESTER OIL
% Wt: 0-5
OSHA PEL: N/K (FP N)
ACGIH TLV: N/K (FP N)

Cas: 9003-13-8
RTECS #: LL3130000
Name: FLUID-AP; (POLYALKYLENE GLYCOL OIL)
% Wt: 0-5
OSHA PEL: N/K (FP N)
ACGIH TLV: N/K (FP N)

Name: SUPDAT: PRODUCE CARBON MONOXIDE & CARBON DIOXIDE UPON COMBUSTION.

Name: EFTS OF OVEREXP: CAUSE TEMPORARY ALTERATION OF HEART'S ELEC ACTIVITY W/IRREG PULSE, PALPITATIONS/INADEQ

Health Hazards Data

LD50 LC50 Mixture: NONE SPECIFIED BY MANUFACTURER.
Route Of Entry Inds - Inhalation: YES
Skin: NO

Ingestion: NO

Carcinogenicity Inds - NTP: NO
IARC: NO
OSHA: NO

Effects of Exposure: INHAL OF HIGH CONCS OF VAP IS HARMFUL & MAY CAUSE HEART IRREGS, UNCON/DEATH. INTENTIONAL MISUSE/DELIB INHAL MAY CAUSE DEATH W/O WARNING. VAP REDUCES OXYGEN AVAIL FOR BREATHING & IS HVR/AIR. LIQ CONT CAN CAUSE FROSTBITE. ANIMAL DATA: LETHARGY & RAPID RESP WERE OBSERVED AT VAP CONC OF 205,000 PPM & PULM (EFTS OF OVEREXP)

Explanation Of Carcinogenicity: NOT RELEVANT

Signs And Symptoms Of Overexposure: HLTH HAZ: CONGESTION, EDEMA & CNS EFTS OCCURRED AT VAP CONC OF 750,000 PPM. CARDIAC SENSIT OCCURRED IN DOGS AT 75,000 PPM FROM ACTION OF EXOGENOUS EPINEPHRINE. EMBRYOTOX ACTIVITY HAS BEEN OBSERVED IN S OME ANIMAL TESTS BUT ONLY AT MATERNALLY TOX DOSE LEVELS. HUMAN HLTH EFTS: OVEREXP BY INHAL TO VERY HIGH CONCS MAY

Medical Cond Aggravated By Exposure: INDIVIDUALS W/PREEXISTING DISEASES OF THE CENTRAL NERVOUS OR CARDIOVASCULAR SYSTEM MAY HAVE INCREASED SUSCEPTIBILITY TO TOXICITY OF EXCESSIVE EXPOSURE

First Aid: INGEST: CALL MD IMMED (FP N). INHAL: IMMED REMOVE TO FRESH AIR. KEEP PERS CALM. IF NOT BREATH, GIVE ARTF RESP. IF BREATH IS DFCLT, GIVE OXYGEN. CALL MD. SKIN: IMMED FLUSH W/PLENTY OF WATER FOR AT LST 15 MINS. REMOVE CONTAM CLTHG & SHOES. CALL MD. TREAT FOR FROSTBITE IF NEC BY GENTLY WARMING AFFECTED AREA. WASH CONTAM CLTHG BEFORE REUSE. EYE: IMMED FLUSH W/PLENTY OF WATER FOR AT LST 15 MINS. CALL

Handling and Disposal

Spill Release Procedures: REVIEW FIRE & EXPLO HAZS & SFTY PRECS BEFORE PROCEEDING W/CLEAN UP. USE APPROP PERSONAL PROT EQUIP DURING CLEAN UP. VENTILATE AREA-ESP LOW PLACES WHERE HEAVY VAPS MIGHT COLLECT. REMOVE OPEN FLAMES. USE & NIOSH/MSHA APPRVD SCBA IF LG SPILL/LEAK OCCURS.

Neutralizing Agent: NONE SPECIFIED BY MANUFACTURER

Waste Disposal Methods: CONTAMINATED HFC-134A CAN BE RECOVERED BY DISTILLATION OR REMOVED TO A PERMITTED WASTE DISPOSAL FACILITY. COMPLY W/FEDERAL, STATE & LOCAL REGULATIONS.

Handling And Storage Precautions: STORE IN CLEAN, DRY AREA. DO NOT HEAT >125F. USE W/SUFFICIENT VENT TO KEEP EMPLOYEE EXPOS BELOW REC LIMS. SEE FIRE & EXPLOSION DATA SECTION.

Other Precautions: USED REFRIGERANT 134A SHOULD NOT BE MIXED W/AIR FOR LEAK TESTING/USED W/AIR FOR ANY OTHER PURPOSE ABOVE ATM PRESS. NO SMOKING IN AREA OF USE. DO NOT USE IN GEN VICIN OF ARC WELDING, OPEN FLAMES/HOT SU RFS. HEAT &/OR UV RADIA MAY
Fire and Explosion Hazard Information

Flash Point Method: TOC
Flash Point Text: WILL NOT BURN
Extinguishing Media: AS APPROPRIATE FOR COMBUSTIBLES IN AREA.
Fire Fighting Procedures: USE NIOSH/MSHA APPROVED PRESSURE DEMAND SCBA & FULL PROTECTIVE EQUIPMENT (FP N). COOL CYLINDERS W/WATER SPRAY.
Unusual Fire/Explosion Hazard: CYLS MAY RUPTURE UNDER FIRE CNDTNS. DECOMP MAY OCCUR. ING 1 IS NOT FLAMM AT AMBIENT TEMPS & ATM PRESS, BUT HAS BEEN SHOWN IN TESTS TO BE COMBUST AT (SUPP DATA)

Control Measures

Respiratory Protection: UNDER NORMAL MANUFACTURING CONDITIONS, NO RESPIRATORY PROTECTION IS REQUIRED WHEN USING THIS PRODUCT. NIOSH/MSHA APPROVED SCBA IS REQUIRED IF A LARGE RELEASE OCCURS.
Ventilation: NORMAL VENT FOR STD MFG PROC is GENERALLY ADEQ. LOC EXHST SHOULD BE USED WHEN LG AMTS ARE RELS. MECH VENT
Protective Gloves: IMPERVIOUS GLOVES.
Eye Protection: ANSI APPRVD CHEM WORKER GOGGLES (FP N).
Other Protective Equipment: NONE SPECIFIED BY MANUFACTURER.
Work Hygienic Practices: NONE SPECIFIED BY MANUFACTURER.
Supplemental Safety and Health: EXPLO HAZ: PRESS AS LOW AS 5.5 PSIG (@ 177C) WHEN MIXED W/AIR AT CONCS OF GENERALLY >60 VOL % AIR. AT LOWER TEMPS, HIGHER PRESS ARE REQD FOR COMBUSTIBILITY. THERMAL DECOMP PRODS MAY INCL FLUORIDES, CHL ORIDES & PHOSGENE (FP N). HAZ DECOMP PROD:HYDROFLUORIC ACID-POSSIBLY CARBONYL FLUORIDE. OILS, IF PRESENT, MAY

Physical/Chemical Properties

PH: NEUT
Appearance and Odor: COLORLESS TO SLIGHTLY YELLOW LIQUEFIED GAS; SLIGHT ETHEREAL ODOR.

Reactivity Data

Stability Indicator: YES
Stability Condition To Avoid: AVOID OPEN FLAMES & HIGH TEMPERATURES.
Materials To Avoid: INCOMPATIBLE W/ALKALI OR ALKALINE EARTH METALS - POWDERED AL, ZN, BE, ETC.
Hazardous Decomposition Products: DECOMP PRODS ARE HAZ. HFC-134A CAN BE DECOMPOSED BY HIGH TEMPS (OPEN FLAMES, GLOWING METALS SURFS, ETC) FORMING (SUPDAT)
Hazardous Polymerization Indicator: NO
HAZCOM Label

Product ID: REFRIGERANT 134A
Cage: 25827
Company Name: Shandong Dongyue Chemical CO.,LTD
Street: Tangshan Town
City: Zibo City, Shandong Province, China
Zipcode: 256400
Health Emergency Phone: 0086-533-8220546
Origination Code: G
Eye Protection IND: YES
Skin Protection IND: YES
Signal Word: WARNING
Respiratory Protection IND: YES
Health Hazard: Moderate
Contact Hazard: Slight
Fire Hazard: None
Reactivity Hazard: None

Hazard And Precautions: ACUTE: INHALATION OF HIGH CONCENTRATIONS OF VAPOR IS HARMFUL & MAY CAUSE HEART IRREGULARITIES, UNCONSCIOUSNESS OR DEATH. INTENTIONAL MISUSE OR DELIBERATE INHALATION MAY CAUSE DEATH W/OFT WARNING. VAPOR REDUCES OXYGEN AVAILABLE FOR BREATHING & IS HEAVIER THAN AIR. LIQUID CONTACT CAN CAUSE FROSTBITE. OVEREXPOSURE BY INHALATION TO VERY HIGH CONCENTRATIONS MAY CAUSE TEMPORARY ALTERATION OF HEART'S ELECTRIC ACTIVITY W/IRREGULAR PULSE, PALPITATIONS OR INADEQUATE CIRCULATION. POLYALKYLENE GLYCOL OILS MAY CAUSE EYE & SKIN IRRITATION. CHRONIC: NONE LISTED BY MANUFACTURER.
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