REFRIGERANT 502

MATERIAL SAFETY DATA SHEET

MSDS PROVIDED BY:

STOODY INDUSTRIAL AND WELDING SUPPLY, INC. 3316 National Ave., San Diego, Ca. 92113

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MILITARY EMERGENCY RESPONSE NUMBER 1-800-851-8061

ALLIED CHEMICAL ALLIED -- GENETRON 502 AZEOTROPE - MONOCHLORODIFLUOROMETHANE AND MOMOCHLOROPENTAFLUOROETHANE, AZ MATERIAL SAFETY DATA SHEET Manufacturer's CAGE: 70308 Part No. Indicator: A Part Number/Trade Name: GENETRON 502 AZEOTROPE _____ General Information Item Name: MONOCHLORODIFLUOROMETHANE AND MOMOCHLOROPENTAFLUOROETHANE, AZ Company's Name: ALLIED CHEMICAL, ALLIED CORP Company's Street: COLUMBIA RD AND PARK AVE Company's P. O. Box: 1087R Company's City: MORRISTOWN Company's State: NJ Company's Country: US Company's Zip Code: 07960 Company's Emerg Ph #: 201-455-3073 Company's Info Ph #: 201-455-3073 Distributor/Vendor # 1: ALLIED CORP., ALLIED CHEMICAL,CSS DEPT. Distributor/Vendor # 1 Cage: 1L164 Record No. For Safety Entry: 003 Tot Safety Entries This Stk#: 005 Status: SE Date MSDS Prepared: 01FEB93 Safety Data Review Date: 10MAY93 Supply Item Manager: CX MSDS Serial Number: BQQCZ Specification Number: BB-F-1421 Spec Type, Grade, Class: UNKNOWN Hazard Characteristic Code: G3 Unit Of Issue: CY Unit Of Issue Container Qty: 1 Type Of Container: CYLINDER Net Unit Weight: 125 POUNDS _____ Ingredients/Identity Information _____ Proprietary: NO Ingredient: CHLORODIFLUOROMETHANE Ingredient Sequence Number: 01 Percent: 48.8 NIOSH (RTECS) Number: PA6390000 CAS Number: 75-45-6 OSHA PEL: 1000 PPM ACGIH TLV: 1000PPM; 9293 Other Recommended Limit: NONE RECOMMENDED _____ Proprietary: NO Ingredient: CHLOROPENTAFLUOROETHANE (SARA III) Ingredient Sequence Number: 02 Percent: 51.2 NIOSH (RTECS) Number: KH7877500

12/18/99

REFRIGERANT 502 MSDS

CAS Number: 76-15-3 OSHA PEL: 1000 PPM ACGIH TLV: 1000 PPM; 9293 Other Recommended Limit: NONE RECOMMENDED _____ Physical/Chemical Characteristics Appearance And Odor: COLORLESS LIQUIFIED GAS WITH FAINT ETHEREAL ODOR. Boiling Point: -49F,-45C Melting Point: UNKNOWN Vapor Pressure (MM Hg/70 F): 7176 MM HG Vapor Density (Air=1): 3.9(AIR=1) Specific Gravity: 1.258 (WATER=1) Decomposition Temperature: UNKNOWN Evaporation Rate And Ref: UNKNOWN Solubility In Water: NEGLIGIBLE Percent Volatiles By Volume: 100 Corrosion Rate (IPY): UNKNOWN _____ Fire and Explosion Hazard Data _____ Extinguishing Media: MEDIA APPROPRIATE FOR SURROUNDING FIRE. Special Fire Fighting Proc: WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING. Unusual Fire And Expl Hazrds: LIQUIFIED GASES IN CONTACT WITH WATER CAN CAUSE VIOLENT EXPLOSIONS. FIRE EXPOSURE MAY CAUSE FORMATION OF TOXIC VAPORS OR GASES. Reactivity Data _____ Stability: YES Cond To Avoid (Stability): HIGH TEMPERATURES. CONTACT WITH INCOMPATIBLE MATERIALS. Materials To Avoid: HOT REACTIVE METALS. Hazardous Decomp Products: HALOGENS, HALIDE ACIDS, PHOSGENE, CARBONYL HALIDES AT HIGH TEMPERATURES Hazardous Poly Occur: NO Conditions To Avoid (Poly): NONE _____ Health Hazard Data _____ LD50-LC50 Mixture: ORAL LD50 (RAT) IS UNKNOWN Route Of Entry - Inhalation: YES Route Of Entry - Skin: NO Route Of Entry - Ingestion: NO Health Haz Acute And Chronic: ACUTE: INHALATION MAY CAUSE RESPIRATORY IRRITATION AND NARCOSIS AT HIGH CONCENTRATIONS. CONTACT WITH SKIN OR EYES MAY CAUSE FROSTBITE. CHRONIC: NONE KNOWN. Carcinogenicity - NTP: NO Carcinogenicity - IARC: NO Carcinogenicity - OSHA: NO Explanation Carcinogenicity: NO INGREDIENT OF A CONCENTRATION OF 0.1% IS LISTED AS A CARCINOGEN BY NTP, IARC OR PSHA. Signs/Symptoms Of Overexp: INHALATION (HIGH CONCENTRATIONS): LOSS OF COORDINATION, INCREASED PULS RATE, DEEP RESPIRATIONS. EYES/SKIN: REDNESS, SWELLING, LOSS OF SENSATION. Med Cond Aggravated By Exp: NONE SPECIFIED BY MANUFACTURER. Emergency/First Aid Proc: SKIN/EYES: FLUSH WITH WARM WATER FOR AT LEAST 15 MINUTES. COVER AND GET IMMEDIATE MEDICAL ATTENTION. INHALED: MOVE TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION IF BREATHING STOPPED. GIVE OXYGEN IF

BREATHING DIFFICULT. SEE DOCTOR. DO NOT GIVE EPINEPHRINE. _____ Precautions for Safe Handling and Use _____ Steps If Matl Released/Spill: WEAR PROPER PROTECTIVE EQUIPMENT AND CLOTHING. STOP LEAK IF POSSIBLE. IF NOT EVACUATE AREA, ISOLATE AND DENY ENTRY; ALLOW TO DISSIPATE. Neutralizing Agent: NONE SPECIFIED BY MANUFACTURER. Waste Disposal Method: DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. Precautions-Handling/Storing: STORE IN A COOL, DRY, WELL-VENTED PLACE AWAY FROM SOURCES OF OPEN FLAME OR HIGH TEMPERATURES. Other Precautions: PROTECT FROM PHYSICAL DAMAGE. HALOCARBONS IN CLOSED/ CONFINED AREAS REQUIRE WELL-VENTILATED DRAFT, AS THEY DEPLETE OXYGEN NECESSARY FOR BREATHING. _____ Control Measures _____ Respiratory Protection: NONE NORMALLY REQUIRED. FOR UNUSUAL SITUATIONS; WEAR SELF-CONTAINED BREATHING APPARATUS. USE IN ACCORDANCE WITH 29 CFR 1910.134. Ventilation: LOCAL EXHAUST AT FILLING ZONES. MECHANICAL AT STORAGE AREAS. Protective Gloves: PVA OR NEOPRENE Eye Protection: SAFETY GLASSES Other Protective Equipment: WATER SOURCE FOR TREATMENT OF FROSTBITE. Work Hygienic Practices: WASH HANDS AFTER USE AND BEFORE EATING, DRINKING, OR SMOKING. Transportation Data _____ Trans Data Review Date: 93130 DOT PSN Code: MPU DOT Proper Shipping Name: REFRIGERANT GASES, N.O.S. DOT Class: 2.2 DOT ID Number: UN1078 DOT Label: NONFLAMMABLE GAS IMO PSN Code: NAP IMO Proper Shipping Name: REFRIGERANT GAS, N.O.S. o IMO Regulations Page Number: 2176 IMO UN Number: 1078 IMO UN Class: 2(2.2) IMO Subsidiary Risk Label: -IATA PSN Code: VQM IATA UN ID Number: 1078 IATA Proper Shipping Name: REFRIGERANT GAS, N.O.S. * IATA UN Class: 2.2 IATA Label: NON-FLAMMABLE GAS AFI PSN Code: VOM AFI Prop. Shipping Name: REFRIGERANT GASES, N.O.S. AFI Class: 2.2 AFI ID Number: UN1078 AFI Basic Pac Ref: 6-6,6-8 N.O.S. Shipping Name: CHLORODIFLUOROMETHANE AND CHLOROPENTAFLUOROETHANE MIXTURE 6830-00-137-7970. _____ Disposal Data _____

_____ Label Data _____ Label Required: YES Technical Review Date: 10MAY93 Label Status: F Common Name: GENETRON 502 AZEOTROPE Chronic Hazard: NO Signal Word: CAUTION! Acute Health Hazard-Slight: X Contact Hazard-Slight: X Fire Hazard-None: X Reactivity Hazard-None: X Special Hazard Precautions: COMPRESSED GAS. ACUTE: INHALATION MAY CAUSE RESPIRATORY IRRITATION AND NARCOSIS AT HIGH CONCENTRATIONS. CONTACT WITH SKIN OR EYES MAY CAUSE FROSTBITE. CHRONIC: NONE KNOWN. STORE IN A COOL, DRY, WELL-VENTED PLACE AWAY FROM SOURCES OF OPEN FLAME OR HIGH TEMPERATURES. FIRST AID: SKIN/EYES: FLUSH WITH WARM WATER FOR AT LEAST 15 MINUTES. COVER AND GET IMMEDIATE MEDICAL ATTENTION. INHALED: MOVE TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION IF BREATHING STOPPED. GIVE OXYGEN IF BREATHING DIFFICULT. SEE DOCTOR. DO NOT GIVE EPINEPHRINE. Protect Eye: Y Protect Skin: Y Protect Respiratory: Y Label Name: ALLIED CHEMICAL, ALLIED CORP Label Street: COLUMBIA RD AND PARK AVE Label P.O. Box: 1087R Label City: MORRISTOWN Label State: NJ Label Zip Code: 07960 Label Country: US Label Emergency Number: 201-455-3073