GRACE W R GRACE CONTAINER PRODUCTS -- DARACLEAN 282 - CLEANING COMPOUND, SOLVENT MATERIAL SAFETY DATA SHEET NSN: 6850013648328 Manufacturer's CAGE: 0NR92 Part No. Indicator: A Part Number/Trade Name: DARACLEAN 282 _____ General Information _____ Item Name: CLEANING COMPOUND, SOLVENT Company's Name: GRACE, W R & CO/GRACE CONTAINER PRODUCTS Company's Street: 55 HAYDEN AVE Company's City: LEXINGTON Company's State: MA Company's Country: US Company's Zip Code: 02173 Company's Emerg Ph #: 617-861-6600 Company's Info Ph #: 617-861-6600 FAX # 617-861-1267 Distributor/Vendor # 1: GRACE W R & CO, DEWEY & ALMAY CHEMICAL D Distributor/Vendor # 1 Cage: 4L319 Distributor/Vendor # 2: PROCESS DEVELOPMENT & CONTROL INC Distributor/Vendor # 2 Cage: OBWU9 Record No. For Safety Entry: 001 Tot Safety Entries This Stk#: 003 Status: SE Date MSDS Prepared: 28MAY97 Safety Data Review Date: 25JUN97 Supply Item Manager: CX MSDS Preparer's Name: UNKNOWN MSDS Serial Number: CDYZF Specification Number: NONE Spec Type, Grade, Class: NONE Hazard Characteristic Code: C2 Unit Of Issue: CN Unit Of Issue Container Qty: 5 GAL Type Of Container: CAN Net Unit Weight: 41.7 LBS NRC/State License Number: NOT RELEVANT _____ Ingredients/Identity Information _____ Proprietary: NO Ingredient: DIETHYLENE GLYCOL MONOBUTYL ETHER Ingredient Sequence Number: 01 Percent: 3 NIOSH (RTECS) Number: KJ9100000 CAS Number: 112-34-5 **OSHA PEL: NOT ESTABLI SHED** ACGIH TLV: NOT ESTABLISHED Other Recommended Limit: NONE RECOMMENDED _____ Physical/Chemical Characteristics _____ Appearance And Odor: YELLOW LIQUID - CITRUS ODOR

Boiling Point: 212F, 100C

Melting Point: UNKNOWN Vapor Pressure (MM Hg/70 F): 29 @ 73F Vapor Density (Air=1): UNKNOWN Specific Gravity: 1 APPROX. Decomposition Temperature: UNKNOWN Evaporation Rate And Ref: UNKNOWN Solubility In Water: COMPLETE Viscosity: UNKNOWN pH: 13.0 Radioactivity: NOT RELEVANT Corrosion Rate (IPY): UNKNOWN _____ Fire and Explosion Hazard Data _____ Flash Point: NONE Lower Explosive Limit: NOT RELEVANT Upper Explosive Limit: NOT RELEVANT Extinguishing Media: CARBON DIOXIDE, FOAM/DRY CHEMICAL. AVOID WATER. WATER SPRAY MAY BE USED TO KEEP FIRE EXPOSED CONTAINERS COOL. Special Fire Fighting Proc: WEAR PROTECTIVE CLOTHING AND NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS. HAZARDOUS DECOMPOSITION PRODUCTS MAY BE FORMED. Unusual Fire And Expl Hazrds: MAY FORM TOXIC GASES. Reactivity Data _____ Stability: YES Cond To Avoid (Stability): EXCESSIVE HEAT Materials To Avoid: STRONG OXIDIZING AGENTS, STRONG ACIDS, NITRITES Hazardous Decomp Products: OXIDES OF NITROGEN, CARBON MONOXIDE, CARBON DIOXIDE MAY BE FORMED. Hazardous Poly Occur: NO Conditions To Avoid (Poly): NOT RELEVANT _____ Health Hazard Data _____ LD50-LC50 Mixture: LD50 (ORAL, RAT) IS UNKNOWN. Route Of Entry - Inhalation: NO Route Of Entry - Skin: NO Route Of Entry - Ingestion: NO Health Haz Acute And Chronic: TARGET ORGANS: EYE, SKIN, RESPIRATORY & GI TRACTS. ACUTE- EYES/SKIN: MAY IRRITATE UPON DIRECT CONTACT. INHALE: MAY CAUSE RESPIRATORY TRACT IRRITATION IF MATERIAL BECOMES AIRBORNE. ORAL: UNKNOWN. CHRONIC- UNKNOWN. Carcinogenicity - NTP: NO Carcinogenicity - IARC: NO Carcinogenicity - OSHA: NO Explanation Carcinogenicity: NONE Signs/Symptoms Of Overexp: IRRITATION Med Cond Aggravated By Exp: UNKNOWN Emergency/First Aid Proc: GET MEDICAL HELP IF SYMPTOMS PERSIST. INHALED: REMOVE TO FRESH AIR. PROVIDE CPR/OXYGEN IF NEEDED. EYES: FLUSH WITH WATER FOR 15 MINUTES, HOLDING EYELIDS OPEN. SKIN: WASH WITH SOAP & WATER. ORAL: DO NOT INDUCE VOMITING. IF CONSCIOUS, RINSE MOUTH WITH WATER. DRINK WATER OR MILK. SEEK MEDICAL ATTENTION.

_____ Precautions for Safe Handling and Use _____ Steps If Matl Released/Spill: WEAR PROPER PROTECTIVE EQUIPMENT. VENTILATE AREA. STOP LEAK IF POSSIBLE. ABSORB SPILL WITH VERMICULITE OR SAND. PLACE IN SEALED CONTAINERS FOR DISPOSAL. WASH AREA WITH SOAPY WATER AND RINSE. SPILL AREA WILL BE SLIPPERY UNTIL CLEANED. Neutralizing Agent: ACETIC ACID, CITRIC ACID, DILUTE PHOSPHORIC ACID Waste Disposal Method: CONTACT FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATORS FOR GUIDANCE REGARDING PROPER DISPOSAL. IF PH IS 12.5 OR GREATER, THE MATERIAL IS DEFINED AS A HAZARDOUS WASTE WITH EPA WASTE NUMBER: DOO2. Precautions-Handling/Storing: STORE AT 40-100 F, IN A WELL-VENTILATED AREA, AWAY FROM INCOMPATIBLE MATERIALS. KEEP CONTAINER TIGHTLY CLOSED WHEN NOT IN USE. Other Precautions: DO NOT GET IN EYES, ON SKIN, ON CLOTHING. AVOID BREATHING VAPORS/MIST. USE WITH ADEQUATE VENTILATION. KEEP OUT OF REACH OF CHILDREN. DO NOT MIX WITH NITRITES OR NITRITE CONTAINING COMPOUNDS. WASH THOROUGHLY AFTER HANDLING. _____ Control Measures _____ Respiratory Protection: NONE NORMALLY NEEDED. IF EXCESSIVE MISTING IS EXPECTED, WEAR NIOSH-APPROVED MIST RESPIRATOR (REFER TO 29 CFR 1910. 134) Ventilation: USE GENERAL OR LOCAL EXHAUST VENTILATION TO KEEP FUME OR MIST LEVELS AS LOW AS POSSIBLE. Protective Gloves: NEOPRENE IF DIRECT CONTACT POSSIBLE Eve Protection: SAFETY GLASSES/CHEMICAL SPLASH GOGGLES Other Protective Equipment: SAFETY SHOWER AND EYE WASH FOUNTAIN SHOULD BE LOCATED NEARBY. WEAR APPROPRIATE PROTECTIVE CLOTHING FOR RISK OF EXPOSURE. Work Hygienic Practices: OBSERVE GOOD INDUSTRIAL HYGIENE PRACTICES AND RECOMMENDED PROCEDURES. WASH THOROUGHLY BEFORE EATING, DRINKING/SMOKING. Suppl. Safety & Health Data: THE PH RANGE: 12.4 - 13.0 _____ Transportation Data ______ Trans Data Review Date: 97176 DOT PSN Code: DWG DOT Proper Shipping Name: CORROSIVE LIQUIDS, N.O.S. DOT Class: 8 DOT ID Number: UN1760 **DOT Pack Group: III** DOT Label: CORROSIVE DOT/DoD Exemption Number: NOT RELEVANT IMD PSN Code: ESH IMD Proper Shipping Name: CORROSIVE LIQUID, N.O.S. o IMD Regulations Page Number: 8147 IMO UN Number: 1760 IMO UN Class: 8 IMD Subsidiary Risk Label: -IATA PSN Code: HKW IATA UN ID Number: 1760 IATA Proper Shipping Name: CORROSIVE LIQUID, N.O.S. * IATA UN Class: 8 IATA Label: CORROSIVE

AFI PSN Code: HKW AFI Prop. Shipping Name: CORROSIVE LIQUID, N.O.S. AFI Class: 8 AFI ID Number: UN1760 AFI Pack Group: III AFI Special Prov: A7 AFI Basic Pac Ref: A12.3 N. O. S. Shipping Name: DIETHYLENE GLYCOL MONOBUTYL ETHER Additional Trans Data: PH: 13.0 ------Disposal Data _____ _____ Label Data _____ Label Required: YES Technical Review Date: 25JUN97 MFR Label Number: UNKNOWN Label Status: F Common Name: DARACLEAN 282 Signal Word: CAUTION! Acute Health Hazard-Slight: X Contact Hazard-Slight: X Fire Hazard-None: X Reactivity Hazard-None: X Special Hazard Precautions: TARGET ORGANS: EYE, SKIN, RESPIRATORY & GI TRACTS. ACUTE- EYES/SKIN: MAY IRRITATE UPON DIRECT CONTACT. INHALE: MAY CAUSE RESPIRATORY IRRITATION IF MATERIAL BECOMES AIRBORNE. ORAL: UNKNOWN. CHRONIC-UNKNOWN. STORE AT 40-100 F, IN A WELL-VENTILATED AREA, AWAY FROM INCOMPATIBLE MATERIALS. ABSORB SPILL WITH VERMICULITE OR SAND. PLACE IN SEALED CONTAINERS FOR DISPOSAL. WASH AREA WITH SOAPY WATER & RINSE. FIRST AID- GET MEDICAL HELP IF SYMPTOMS PERSIST. INHALED: REMOVE TO FRESH AIR. PROVIDE CPR/OXYGEN IF NEEDED. EYES: FLUSH WITH WATER FOR 15 MINUTES. HOLD EYELIDS OPEN. SKIN: WASH WITH SOAP & WATER. ORAL: DON'T INDUCE VOMITING. DRINK WATER/MILK. CALL DOCTOR **Protect Eye: Y** Label Name: GRACE, W R & CO/GRACE CONTAINER PRODUCTS Label Street: 55 HAYDEN AVE Label City: LEXINGTON Label State: MA Label Zip Code: 02173 Label Country: US Label Emergency Number: 617-861-6600