Product ID:METHYL DIGLYCOL MSDS Date:07/06/1998 FSC:6850 NIIN:01-089-5514 Status Code:A MSDS Number: CJKHR === Responsible Party === Company Name: CLARIANT CORP Address:4000 MONROE RD City:CHARLOTTE State:NC ZIP:28205-7706 Country:US Info Phone Num:704-331-7000/7710 (MSDS) Emergency Phone Num:704-331-7000 Res p. Party Other MSDS Num.:600704 Preparer's Name:C_CRIST Chemtrec Ind/Phone:(800)424-9300 CAGE:1Y044 === Contractor Identification === Company Name: CLARIANT CORP Address:4000 MONROE RD Box:City:CHARLOTTE State:NC ZIP:28205 Country:US Phone:908-429-3562 CAGE:1Y044 Company Name: TELECHEM INTERNATIONAL, INC Address:524 E WEDDELL DRIVE SUITE 3 Box:City:SUNNYVALE State:CA ZIP:94089-2115 Country:US Phone:916-941-3688 Contract Num:SP0450-99-M-NB59 CAGE:1KH20

======= Composition/Information on Ing

redients ==========

Ingred Name: DIETHYLENE GLYCOL METHYL ETHER CAS:111-77-3 RTECS #:KL6125000 = Wt:100. Other REC Limits:NONE RECOMMENDED Ingred Name: GLYCOL ETHERS (SARA 313 CATEGORY), TOTAL GLYETHCMPD = Wt:100. Other REC Limits:NONE RECOMMENDED LD50 LC50 Mixture:LD50(ORAL,RAT)>7,000 MG/KG;DIETHGLYMEETH Routes of Entry: Inhalation:NO Skin:YES Ingestion:YES Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO Health Haz ards Acute and Chronic: TARGET ORGANS: EYES, KIDNEYS, BLADDER, RESPIRATORY AND CNS. EFFECTS OF EXPOSURE: DIETHYLENE GLYCOL METHYL ETHER: MODERATELY TOXIC BY SKIN CONTACT. MILDLY TOXIC BY INGESTION. AN EYE IRRITANT. PROLONGED / REPEATED SKIN EXPOSURE IS NOT LIKELY TO CAUSE SIGNIFICANT IRRITATION. VAPOR OR MIST MAY BE IRRITATING TO EYES, MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT. EXCESSIVE EXPOSURE MAY CAUSE LIVER, KIDNEY AND POSSIBLY TESTICULAR EFFECTS. **GLYCOL ETHERS** : THE HEALTH EFFECTS OF GLYCOL ETHERS VARY WITH THE PARTICULAR GLYCOL ETHER. THESE EFFECTS MAY INCLUDE IRRITATION TO SKIN, EYES, RESPIRATORY SYSTEM, REDU CTION OF SPERM COUNT OR BIRTH DEFECTS. Explanation of Carcinogenicity:NONE Effects of Overexposure: IRRITATION, EYE PAIN First Aid:EYE: IMMEDIATELY WASH THE EYE WITH LARGE AMOUNT OF WATER, OCCASIONALLY LIFTING THE UPPER AND LOWER EYELIDS. SEEK MEDICAL

ATTE

NTION IMMEDIATELY. SKIN: REMOVE CONTAMINATED CLOTHING. FLUSH AFFECTED AREA WITH PLENTY OF WATER. IF CONTACT HAS BEEN WIDESPREAD, OR PROLONGED, OR IF IRRITATION CONTINUES, CONSULT A PHYSICIAN. WASH CLOTHING BEFORE REUSE. INHALATION: GET VICTIM TO FRESH AIR. GIVE ARTIFICIAL RE SPIRATION OR OXYGEN. IF BREATHING HAS STOPPED. GET PROMPT MEDICAL ATTENTION. INGESTION: GIVE VICTIM WATER AND INDUCE VOMITING IMMEDIATELY IF VICTIM IS CONSCIOUS. GET IMMEDIATE MEDICAL ATTENTION. DO NO T GIVE FLUIDS IF VICTIM IS UNCONSCIOUS.

Flash Point:=91.7C, 197.F
Lower Limits:1.6%
Upper Limits:18.1%
Extinguishing Media:ALCOHOL FOAM, CO2, DRY CHEMICAL, WATER /FOG SPRAY.
Fire Fighting Procedures:USE NIOSH/MSHA APPROVED SELF-CONTAINED
BREATHING APPARATUS AND OTHER PROPER PROTECTIVE EQUIPMENT WHERE
THIS CHEMICAL IS INVOLVED IN A FIRE. USE WATER SPRAY TO COOL
CONTAINERS.
Unusual Fire/Explosion Hazard:EM
ITS TOXIC FUMES UNDER FIRE CONDITIONS.

Spill Release Procedures:WEAR APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT. CONTAIN SPILL. USE ABSORBENT MATERIAL TO SOAK UP LIQUID. PLACE IN PROPER WASTE DISPOSAL CONTAINERS. RINSE RESIDUAL WITH WATER.

Handling and Storage Precautions: DO NOT STORE IN ALUMINUM CONTAINERS.

======== Exposure Controls/Pers

onal Protection ==========

Respiratory Protection: IF AIRBORNE CONCENTRATIONS POSE A HEALTH HAZARD, BECOME IRRITATING OR EXCEED RECOMMENDED LIMITS, USE A NIOSH APPROVED RESPIRATOR IN ACCORDANCE WITH OSHA RESPIRATORY PROTECTION REQUIREMENTS UNDER 29 CF R 1910.134

Ventilation:LOCAL VENTILATION RECOMMENDED - MECHANICAL VENTILATION MAY BE USED.

Protective Gloves: BUTYL RUBBER, PVC OR NEOPRENE

Eye Protection: FACE SHIELD AND GOGGLES OR CHEMICAL GOGGLES SHOULD BE WORN

Other Prote

ctive Equipment:WEAR CLOTHING SUITABLE TO PREVENT SKIN CONTACT. HAVE EYEWASH FOUNTAIN AND SAFETY SHOWER AVAILABLE IN THE WORK AREA. Work Hygienic Practices: OBSERVE GOOD INDUSTRIAL HYGIENE PRACTICES AND RECOMMENDED PROCEDURES. WASH AFTER HANDLING AND BEFORE EATING, DRINKING OR SMOKING. Supplemental Safety and Health PRODUCT CODE: 600704. HCC:V4 Boiling Pt:=190.C, 374.F B.P. Text:374-384F Melt/Freeze Pt:=-65.C, -85.F Vapor Pres:(MMHG)1 pH:NEUTRAL Viscosity:3.9MPA+S Solubility in Water:MISCIBLE Appearance and Odor: COLORLESS LIQUID, SLIGHT ODOR (ODOR THRESHOLD NOT AVAILABLE) Stability Indicator/Materials to Avoid:YES NONE KNOWN Stability Condition to Avoid:NONE Hazardous Decomposition Products: THERMAL DECOMPOSITON MAY PRODUCE OXIDES OF CARBON. Toxicological In formation:LD50 (ORAL, RAT) 9,210 MG/KG. DIETHYLENE GLYCOL METHYL ETHER LD50 (DERMAL) (RABBIT) - 20 ML/KG. Ecological:AQUATIC TOXICITY LC50 > 5000 MG/L 24 H Waste Disposal Methods: RECOMMENDED DISPOSAL IS BY INCINERATION IN APPROVED FACILITIES.

SARA Title III Information:UNDER THE

PROVISIONS OF TITLE III, SECTION

311/312 OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT, THIS PRODUCT IS CLASSIFIED INTO THE FOLLOWING HAZARD CATEGORIES: IMMEDIATE /ACUTE: Y, DELAYED/CH RONIC: Y, FIRE HAZARD: Y. THIS PRODUCT CONTAINS A TOXIC CHEMICAL(S) SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA) OF 1986 AND 40 CFR PART 372.

Federal Regulatory Information:WE CERTIFY THAT ALL COMP ONENTS OF THIS

PRODUCT ARE REGISTERED UNDER REGULATIONS OF THE TOXIC SUBSTANCE CONTROL ACT (TSCA). RCRA REGULATED COMPONENTS: DIETHYLENE GLYCOL METHYL ETHER AND GLYCOL ETHERS. PENSYLVANIA AND MASSACHUSETTS: DIETHYLENE GLYCOL METHYL ETHER AND GLYCOL ETHERS. State Regulatory Information:

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