Product ID:SOLUTION S 0294 NALCO 39-1 MSDS Date:05/15/1989 FSC:6810 NIIN:01-115-9031 MSDS Number: BGMLZ === Responsible Party === Company Name:NALCO CHEMICAL COMANY Address: ONE NALCO CENTER City:NAPERVILLE State:IL ZIP:60563-1198 Country:US Info Phone Num:708-305-1000 **Emergency Phone Num:708-**920-1510(24 HOURS) Preparer's Name: RICKY A. STACKHOUSE, PHD CAGE:89524 === Contractor Identification === Company Name: KAMPI COMPONENTS CO., INC. Address:210 RT 13 Box:721 City:BRISTOL State:PA ZIP:19007-3517 Country:US Phone:215-736-2000 CAGE:7Z016 Company Name:NALCO CHEMICAL CO, FIELD SYSTEMS DIV Address:6233 W 65TH STREET Box:City:CHICAGO State:IL ZIP:60638 Country:US Phone:312-496-7000 CAGE:0EGT6 Company Name: ONDEO NALCO COMPANY Address:ONDEO NALCO CENTER Box:City:NAPERVILLE State:IL ZIP:6056

3-1198 Country:US Phone:(630) 305-1000 CAGE:89524

Ingred Name:ISOPROPYL ALCOHOL (SARA III) CAS:67-63-0 RTECS #:NT8050000 Fraction by Wt: 99%+ Other REC Limits:NONE SPECIFIED OSHA PEL:400 PPM/500 STEL ACGIH TLV:400 PPM/500STEL;9192

Ingred Name:BROMOCRDSOL GREEN (DISSOLVED IN ISOPROPANOL) CAS:76-60-8 RTECS #:SJ7456000

Ingred Name:METHYL RED (DISSOLVED IN ISOPROPANOL) CAS:493-52-7 RTECS #:DG8960000

LD50 LC50 Mixture:ORAL LD50 (RAT) 5,000 MG/KG Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO

Health Hazards Acute and Chronic:ACUTE-INGESTION:MAY CAUSE DRUNKENNESS, DROWSINESS,INCOORDINATION.EYE/SKIN:CAN CAUSE MODERATE IRRITATION. INHALATION:PROLONGED INHALATION OF MIST/VAPOR MAY CAUSE NAUSEA,DIZZINESS, VOMITING & UNCONSCIOU SNESS.CHRONIC-DROWSINESS OR DRUNKENNESS.

Explanation

of Carcinogenicity:THIS CHEMICAL IS NOT LISTED AS HAVING ANY EVIDENCE OF BEING CARCINOGENIC.

Effects of Overexposure: INGESTION MAY CAUSE DRUNKENNESS, DROWSINESS, INCOORDINATION. CAN CAUSE MODERATE EYES AND SKIN IRRITATION. PROLONGED INHALATION OF MIST/VAPOR MAY CAUSE NAUSEA, DIZZINESS, VOMITING & UNCONSCIOUSNESS.

Medical Cond Aggravated by Exposure: A REVIEW OF AVAILABLE DATA DOES NOT IDENTIFY ANY WORSENING OF EXISTING CONDITIONS.

======= First Aid Measures

First Aid:OBTAIN MEDICAL ATTENTION IN ALL CASES. INGESTION:DO NOT INDUCE VOMITING.IF CONSCIOUS,DRINK WATER.INHALATION:REMOVE FROM EXPOSURE.IF BREATHING IS DIFFICULT/ABSENT,PROVIDE CARDIOPULMONARY SUPPORT.EYE/SK IN:FLUSH WITH WATER FOR 15 MINUTES.HOLDEYE LIDS OPEN.

Flash Point Method:TCC Flash Point:56.0F,13.3C Autoignition Temp: Autoignition Temp Text: 860F Lower Limits:2.0 **Upper Limits** :12.0 Extinguishing Media: USE CARBON DIOXIDE, ALCOHOL FOAM, OR DRY CHEMICAL OR OTHER EXTINGUISHING AGENT SUITABLE FOR CLASS B FIRES. Fire Fighting Procedures:WEAR FIRE FIGHTING PROTECTIVE EQUIPMENT AND A FULL FACED SELF CONTAINED BREATHING APPARATUS OPERATED IN+PRESSURE. COOL FIRE EXPOSED CONTAINERS WITH WATER SPRAY. Unusual Fire/Explosion Hazard: COMBUSTION OR HEAT OF FIRE MAY PRODUCE HAZARDOUS DECOMPOSITION PRODUCTS AND VAPORS. ======================== Accidental Release Measures = _____ Spill Release Procedures: FIRE HAZARD: ELIMINATE ALL SOURCES OF IGNITION. EVACUATE AREA. VENTILATE AREA. STOP RELEASE. DIKE TO CONTAIN SPILL. WEAR PROPER SAFETY EQUIPMENT. IF AMOUNT IS LARGE, REMOVE LIQUID BY

VACUUM. IF SMALL, ABSORB ON INERT MATERIAL (CLAY,SOIL). Neutralizing Agent:DILUTE WITH WATER

Handling and Storage Precautions:STORAGE-STORE IN TIGHTLY CLOSED CONTAINERS IN FLAMMABLE LIQUI

D STORAGE ROOM/CABINET.AVOID EXCESSIVE HEAT.

Other Precautions:DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. KEEP AWAY FROM OXIDIZING AGENTS.

======= Exposure Controls/Personal Protection ==========

Respiratory Protection: IF LEVELS EXCEED THE RECOMMENDED HEALTH STANDARDS, WEAR A NIOSH/MSHA APPROVED ORGANIC VAPOR RESPIRATOR. FOR EMERGENCY USE, WEAR A NIO APPARATUS. Ventilation: IF LEVELS EXCEED THE RECOMMENDED HEALTH STANDARDS, USE LOCAL EXHAUST OR GENERAL DILUTION VENTILATION. Protective Gloves: IMPERVIOUS GLOVES Eye Protection: SAFETY GLASSES/FACE SHIELD Other Protective Equipment: EYE WASH STATION & SAFETY SHOWERS SHOULD BE AVAILABLE IN THE IMMEDIATE VICINITY OF ANY POTENTIAL EXPOSURE. Work Hygienic Practices: WASH HANDS BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES. WASH CONTAMIN ATED CLOTHING BEFORE REUSE. Supplemental Safety and Health

39-1 - BROM CRESOL GREEN AND METHYL RED DISSOLVED IN ISOPROPANOL.

SH APPROVED SELF-CONTAINED BREATHING

HCC:F2 Boiling Pt:=82.2C, 180.F Spec Gravity:0.79 Solubility in Water:COMPLETE Appearance and Odor:CLEAR AMBER TO ORANGE LIQUID, ISOPROPANOL ODOR Percent Volatiles by Volume:>99

Stability Indicator/Materials to Avoid:YES
STRONG OXIDIZ
ING AGENTS (EG. CHLORINE, PEROXIDES, CHROMATES, NITRIC ACID, PERCHLORATES, CONCEN. OXYGEN, PERMANGANATES)
Stability Condition to Avoid:HIGH HEAT, SPARKS, OPEN FLAMES AND OTHER SOURCES OF IGNITION
Hazardous Decomposition Products:MAY EMIT CARBON MONOXIDE, CARBON DIOXIDE AND UNIDENTIFIED ORGANICS.

Waste Disposal Methods:INSURE CONFORMITY WITH GOVERNMENT DISPOSAL REGULATIONS. USE CERTIFIED VENDOR FOR DISPOSAL BY I NCINERATION.

HAZARDOUS WASTE D001.

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