Product ID:NALCO NALCOOL 2000 MSDS Date:10/06/1999 FSC:6850 NIIN:01-085-4718 Status Code:A MSDS Number: CKZMQ === Responsible Party === Company Name:NALCO LTD Address:WINNINGTON AVE. Box:11 City:NORTHWICH, CHESHIRE CW8 4DX Country:UK Info Phone Num:01606 74488 Emergency Phone Num:(INTL)+44(0) 1865 407333 Prepar er's Name:NOT PROVIDED CAGE:U8210 === Contractor Identification === Company Name:NALCO LTD Address:WINNINGTON AVE. Box:11 City:NORTHWICH, CHESHIRE CW8 4DX Country:UK Phone:01606 74488 CAGE:U8210 Company Name:NALFLEET INC Address:195 MOUNTAIN AVE Box:City:SPRINGFIELD State:NJ ZIP:07081-1755 Country:US Phone:973-379 -1340 Contract Num:SP0450-01-M-D723 CAGE:95719

Ingred Name:SODIUM NITRITE CAS:7632-00-0 RTECS #:RA1225000 Minumum % Wt:4. Maxumum % Wt:6. Other REC Limits:NOT PROVIDED EPA Rpt Qty:100 LBS DOT Rpt Qty:100 LBS

LD50 LC50 Mixture:LD50 (ORAL, RAT) > 2,000 MG/KG Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO

Health Hazards Acute and Chronic:ACUTE - INHALE: MAY CAUSE IRRITATION OF MUCOUS MEMBRANES. EYE/SKIN: CAN CAUSE MODERATE IRRITATION. INGESTION: HARMFUL IF SWALLOWED. MAY CAUSE GASTROINTESTINAL TRACT IRRITATION, NAUSEA, VO

MITING. COMPO NENTS OF THE PRODUCT CREATE

FORMATION OF METHEMOGLOBIN. PREGNANT WOMEN ARE PARTICULARLY SENSITIVE TO METHEMOGLOBINEMIA. MAY CAUSE A DECREASE IN BLOOD PRESSURE AND CYANOSIS. CHRONIC - REPEATED INGESTIO N OF SMALL AMOUNTS OF SODIUM NITRITE CAUSES DROPS IN BLOOD PRESSURE, RAPID PULSE, HEADACHES AND VISUAL DISTURBANCES. IT MAY REACT WITH AMINES IN THE BODY TO FORM CARCINOGENIC NITROSAMINES.

Explanation of Carcinogenicity: IT MAY REACT WITH AMINES IN THE BODY TO

FORM CARCINOGENIC NITROSAMINES.

Effects of Overexposure:INHALE: MAY CAUSE IRRITATION OF MUCOUS MEMBRANES. EYE/SKIN: CAN CAUSE MODERATE IRRITATION. INGESTION: MAY CAUSE GASTROINTESTINAL TRACT IRRITATION, NAUSEA, VOMITING. MAY CAUSE A DECREASE IN BLOOD PRESS URE AND CYANOSIS. Medical Cond Aggravated by Exposure:NOT PROVIDED

First Aid:INHALED: NOT NECESSARY UNLESS AEROSOL/MISTS ARE GENERATED. REMOVE TO FRESH A

IR, REST, TREAT SYMPTOMATICALLY. OBTAIN MEDICAL ATTENTION. SKIN: REMOVE CONTAMINATED CLOTHING. WASH OFF AFFECTED AREA IMMED IATELY WITH PLENTY OF WATER. EYES: IMMEDIATELY GENTLY FLUSH WITH CLEAN WATER FOR AT LEAST 15 MINUTES. HOLD EYELIDS OPEN. OBTAIN MEDICAL ATTENTION IMMEDIATELY. INGESTION: DO NOT INDUCE VOMITING WITHOU T MEDICAL ADVICE. IF CONSCIOUS, WASH OUT MOUTH AND GIVE ONE PINT OF WATER TO DRINK. OBTAIN MEDICAL ATTENTION IMMEDIATELY. IF UNCONSCIOUS DO NOT GI VE ANYTHING BY MOUTH. CHECK BREATHING AND PULSE. IF NE CESSARY GIVE ARTIFICIAL RESPIRATION.

Flash Point:NOT FLAMMABLE Autoignition Temp:Autoignition Temp Text:NA Extinguishing Media:NOT EXPECTED TO BURN. USE EXTINGUISHING MEDIA APPOPRIATE FOR SURROUNDING FIRE Fire Fighting Procedures:IN CASE OF FIRE, WEAR A FULL FACE POSTIVE

-PRESSURE SELF CONTAINED BREATHING APPPARATUS AND PROTECTIVE SUIT. Unusual Fire/Explosion

Hazard:MAY EVOLVE TOXIC GASES OR FUMES UNDER

FIRE CONDITIONS, OXIDES OF NITROGEN. IF PRODUCT IS ALLOWED TO DRY, THE SODIUM NITRITE IS AN OXIDIZING AGENT AND CAN INITIATE THE COMBUSTION OF OTHER MATERIALS.

Spill Release Procedures:WEAR PROTECTIVE CLOTHING, IMPERVIOUS GLOVES AND CHEMICAL SPLASH GOGGLES. PREVENT ENTRY INTO SEWERS OR WATER COURSES. IF IT DOES, INFORM AUTHORITIES. CONTAIN AND ABSORB WITH SAN

D OR VERMICULITE AND MIX WELL. COLLECT UP AND REMOVE TO A SAFE PLACE UNTIL DISPOSAL. WASH SITE THOROUGHLY WITH WATER. DO NOT USE COTTON WASTE, SAWDUST OR OTHER COMBUSTIBLES AS ABSORBENTS, THESE MAY IGNITE WHEN DRIED OUT.

Neutralizing Agent:NOT PROVIDED

Handling and Storage Precautions: KEEP CONTAINER TIGHTLY CLOSED IN A COOL, WELL VENTILATED PLACE. STORE SEPARATELY FROM ACIDS, ORGANIC MATERIALS AND REDUCING

AGENTS. EQUIPMENT FOR STORAGE SHOULD BE CONSTRUCTED FROM STAINLESS STEEL, P VC, BUTYL/NITRILE RUBBER. AVOID USE OF AL, COPPER, ZINC AND THEIR ALLOYS, BRASS AND GALVANIZED METAL

Other Precautions:DO NOT GET IN EYES, ON SKIN OR ON CLOTHING. WASH THOROUGHLY AFTER HANDLING AND BEFORE EATING OR DRINKING. REMOVE CONTAMINATED CLOTHING PROMPTLY. LAUNDER BEFORE REUSE. KEEP OUT OF REACH OF CHILDREN. DO NOT TAKE INTERNALLY. AVOID GENERATING AEROSOLS AND MISTS.

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

Respiratory Protection:NONE NORMALLY NEEDED. IF EXCESSIVE MISTING IS EXPECTED, WEAR AN APPROVED RESPIRATOR.
Ventilation:USE A CLOSED DESIGN SYSTEM. LOCAL EXHAUST VENTILATION IS RECOMMENDED WHERE SIGNIFICANT AEROSOLS/MISTS ARE GENERATED.
Protective Gloves:NITRILE, NEOPRENE, PVC
Eye Protection:CHEMICAL SPLASH GOGGLES
Other Protective Equipment:WEAR IMPERVIOUS APRON. KEEP AN EYE WASH FOUNTAIN AVAILABLE.
Work Hygienic Practices:NOT P
ROVIDED
Supplemental Safety and Health
ABBREVIATION: N/A = NOT APPLICABLE. N/AV = NOT AVAILABLE. N/K = UNKNOWN. N/P = NOT PROVIDED. N/R = NOT RELEVANT. N/D = NOT DETERMINED. N/E = NOT ESTABLISHED.

HCC:B3 NRC/State Lic Num:NOT RELEVANT Boiling Pt:B.P. Text:NOT EVALUATED Melt/Freeze Pt:M.P/F.P Text:NOT EVALUATED Decomp Temp:Decomp Text:NOT PROVIDED Vapor Pres:SAME AS WATER Spec Gravity:1.095-1.125 pH:11.3-11.8 Viscosity :NOT EVALUATED Evaporation Rate & amp; Reference:NOT PROVIDED Solubility in Water:COMPLETE Appearance and Odor:DARK RED LIQUID,SLIGHT ODOR Percent Volatiles by Volume:NOT PROVIDED Corrosion Rate:NOT PROVIDED

Stability Indicator/Materials to Avoid:YES ACIDS, REDUCING AGENTS, ORGANIC MATERIALS Stability Condition to Avoid:FREEZING Hazardous Decomposition Products:MAY EVOLVE TOXIC GASES OR FUMES, OXIDES OF NITROGEN.

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Toxicological Information:PRIMARY SKIN IRRITATION: 0.5/8.0. PRIMARY EYE IRRITATION: 16.7/110.0. . CHRONIC - REPEATED INGESTION OF SMALL AMOUNTS OF SODIUM NITRITE CAUSES DROPS IN BLOOD PRESSURE, RAPID PULSE, HEADACHES AND VISUA L DISTURBANCES. IT MAY REACT WITH AMINES IN THE BODY TO FORM CARCINOGENIC NITROSAMINES.

Ecological:EC50 (48 HR.)/DAPHNIA MAGNA (WATER FLEA) = 670 MG/L. NOEC/48 H/DAPHNIA MAGNA (WATER FLEA) = 400 MG/L. LC50/96 HR/ONCORHYNCHUS MYKISS (RAINBOW TROUT) = 57 MG/L. NOEC/96 HR/ONCORHYNCHUS MYKISS (RAINBOW TROUT) < 40 MG/L. LC50/96HR/SCOPHTHALMUS MAXIMUS = > 2000 MG/L (PARCOM). NOEC/96HR/SCOPHTHALMUS MAXIMUS = 2000 MG/L (PARCOM).

Waste Disposal Methods:VIA AUTHORIZED CONTRACTOR. IF THIS PRODUCT BECOMES A WASTE, THE FINAL USER MUST DEFINE A ND ASSIGN THE APPROPRIATE EUROPEAN WASTE CATALOGUE CODE.

Transport Information:NOT REGULATED.

SARA Title III Information:NOT PROVIDED Federal Regulatory Information:NOT PROVIDED State Regulatory Information:NOT PROVIDED

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