Product ID:MERCURY-ZINC BA-53 MSDS Date:02/01/1994 FSC:6135 NIIN:00-120-1004 MSDS Number: BWQZC === Responsible Party === Company Name: ALEXANDER MFG CO. Address:1511 S. GARFIELD PL Box:1508 City:MASON CITY State:IA ZIP:50401-5662 Country:US Info Phone Num:515-423-8955 Emergency Phone Num:515-423-1161 Pr eparer's Name:UNREADABLE CAGE:56469 === Contractor Identification === Company Name: ALEXANDER TECHNOLOGIES INC Address:1511 S. GARFIELD PL Box:1508 City:MASON CITY State:IA ZIP:50401 Country:US Phone:515-423-1161/8955 CAGE:56469

Ingred Name:MERCURIC OXIDE (SARA III) CAS:21908-53-2 RTECS #:OW8750000 Other REC Limits:NONE RECOMMENDED OSHA PEL:0.1 MG HG/M3;SKIN;C ACGIH TLV:0.1 MG HG/M3; 9192

Ingred Name:MANGANESE DIOXIDE CAS:13

13-13-9 RTECS #:OP0350000 Other REC Limits:NONE RECOMMENDED OSHA PEL:5 MG MN/M3 CEILING ACGIH TLV:5 MG MN/M3

Ingred Name:POTASSIUM HYDROXIDE (SARA III) CAS:1310-58-3 RTECS #:TT2100000 Fraction by Wt: TRACE Other REC Limits:NONE RECOMMENDED OSHA PEL:C, 2 MG/M3 ACGIH TLV:C 2 MG/M3; 9192 EPA Rpt Qty:1000 LBS DOT Rpt Qty:1000 LBS

Ingred Name:ZINC (SARA III) CAS:7440-66-6 RTECS #:ZG8600000 Other REC Limits:NONE RECOMMENDED OSHA PEL:10 MG ZNO/M3 ACGIH TLV:10 MG ZNO/M3; 9192 EPA Rpt Qty:1000 LBS DO T Rpt Qty:1000 LBS

Routes of Entry: Inhalation:NO Skin:NO Ingestion:NO Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO Health Hazards Acute and Chronic:ACUTE: NO HAZARDOUS HEALTH EFFECTS EXPECTED DURING NORMAL CONDITIONS OF USE. FUMES/VAPORS/MISTS OCCURING FROM RUPTURED BATTERIES AND/OR FIRES MAY CAUSE RESPIRATORY & SKIN IRRITATION. CHRONIC: NONE SPE CIFIED BY MANUFACTURER. Explanation of Carcinogenicity:NO INGREDIENT OF A CONCENTRATION OF 0.1% OR GREATER IS LISTED AS A CARCINOGEN OR SUEPECTED CARCINOGEN. Effects of Overexposure:RESPIRATORY: COUGHING, WHEEZING, SHORTNESS OF BREATH. SKIN: RESH, ITCHING.

Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

First Aid:INHALATION-REMOVE TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION IF BREATHING STOPPED. SEEK MEDICAL ATTENTION. EYES-FLUSH WITH WATER FOR AT L EAST 15 MINUTES. SEEK MEDICAL ATTENTION. SKIN-WASH AFFECTED AREA THOROUGHLY. SEEK MEDICAL ATENNTION. INGESTED-SEEK MEDICAL ATTENTION IMMEDIATELY.

Extinguishing Media:DRY CHEMICAL. Fire Fighting Procedures:WEAR SELF-CONTAINED BREATHING APPARATUS IF BATTERIES ARE ON FIRE. Unusual Fire/Explosion Hazard:NONE KNOWN.

Spill Release Procedures:USE RUBB ER GLOVES AND PROPER RESPIRATORY PROTECTION (FOR MERCURY FUMES/VAPORS). NEUTRALIZE IF NEEDED. ABSORB WITH INERT MATERIAL IF NEEDED AND PLACE IN A CONTAINER FOR LATER DISPOSAL.

Neutralizing Agent:5% ACETIC ACID SOLUTION.

Handling and Storage Precautions: AVOID HEAT & WATER. DO NOT SHORT CIRCUIT, CHARGE OR OPEN THE BATTERY CELLS. Other Precautions: NONE SPECIFIED BY MANUFACTURER.

====== Exposure Controls/P

ersonal Protection ========

Respiratory Protection: NONE NORMALLY REQUIRED. IF ENGINEERING CONTROLS FAIL OR NON-ROUTINE USE OR AN EMERGENCY OCCURS;WEAR AN MSHA/NIOSH APPROVED RESPIRATOR OR AN AIR-SUPPLIED RESPIRATOR OR SCBA, AS REQUIRED.USE IAW 29 CFR 19 10.134 & MANUFACTURER'S RECOMMENDATION. Ventilation: USE ADEQUATE MECHANICAL VENTILATION OR LOCAL EXHAUST TO MAINTAIN EXPOSURE BELOW TLV(S). Protective Gloves: NONE NORMALLY REQUIRED. Eye Protection: NONE NORMALLY REQUIRED. Othe r Protective Equipment:NONE NORMALLY REQUIRED. Work Hygienic Practices: WASH HANDS AFTER HANDLING AND BEFORE EATING, DRINKING, OR SMOKING. LAUNDER CONTAMINATED CLOTHES BEFORE REUSE. Supplemental Safety and Health HCC:N1 Boiling Pt:B.P. Text:212F,100C Spec Gravity:1 Solubility in Water:NEGLIGIBLE

Appearance and Odor:BATTERY, RECTANGULAR, 45 VOLTS, 3 TERMINALS, 5.219 X 3.000 X 1.875 INCHES.

====== Stability

Stability Indicator/Materials to Avoid:YES NONE KNOWN. Stability Condition to Avoid:HEATING ABOVE 160F; CHARGING, WATER. Hazardous Decomposition Products:MANGANESE, MERCURY & ZINC OXIDE. Conditions to Avoid Polymerization:WILL NOT OCCUR.

Waste Disposal Methods:DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL ENVIRONMENTAL REGULATIONS.

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n by the compiling agencies):

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