

NAVAL MINE WARFARE ENGINEERING ACTIVITY -- DISCHARGED BATTERY ALKALINE, MK106-0 --  
6135-00-008-5342

===== Product Identification =====

Product ID:DISCHARGED BATTERY ALKALINE, MK106-0  
MSDS Date:02/08/1991  
FSC:6135  
NIIN:00-008-5342  
MSDS Number: BNMMC  
=== Responsible Party ===  
Company Name:NAVAL MINE WARFARE ENGINEERING ACTIVITY  
Address:CODE 60 BUILDING 1959  
City:YORKTOWN  
State:VA  
ZIP:23691-5076  
Country:US  
Info Phone Num:804-887-4930  
Emergency Phone Num:804-887-4930  
Preparer's Name:ANN ALLEN  
CAGE:30265  
=== Contractor Identification ===  
Company Name:HOECHST CELANESE CHEM GROUP  
Box:City:DALLAS  
State:TX  
ZIP:75356-9320  
Country:US  
Phone:214-689-4000  
CAGE:10001  
Company Name:NAVAL MINE WARFARE ENGINEERING ACTIVITY  
Address:CODE 60 BUILDING 1959  
Box:City:YORKTOWN  
State:VA  
ZIP:23691-5076  
Country:US  
Phone:804-887-4930  
CAGE:30265

===== Composition/Information on Ingredients =====

In

gred Name:MERCURY  
CAS:7439-97-6  
RTECS #:OV4550000  
Fraction by Wt: 0.01%  
OSHA PEL:0.1 MG/M3, S, C  
ACGIH TLV:0.05 MG/M3, S  
EPA Rpt Qty:1 LB  
DOT Rpt Qty:1 LB

Ingred Name:MAGANESE  
CAS:7439-96-5  
RTECS #:OO9275000  
Other REC Limits:1 MG/M3 FUME; 3 STEL  
OSHA PEL:(C) 5 MG/M3 DUST  
ACGIH TLV:5 MG/M3 DUST 9293

Ingred Name:POTASSIUM HYDROXIDE  
CAS:1310-58-3  
RTECS #:TT2100000  
Fraction by Wt: 10%  
OSHA PEL:2 MG/M3, C  
ACGIH TLV:2 MG/M3, C  
EPA Rpt Qty:1000 LBS  
DOT Rpt Qty:1000 LBS

Ingred Name:MANGANESE DIOXIDE  
CAS:1313-13-9  
RTECS #:OP0350000  
Fraction by Wt: 10%  
OSHA PEL:5 MG/M3 CEILING (MN)  
ACGIH TLV:5 MG/M3 (AS MN DUST)

Ingred Name:CARBON BLACK  
CAS:1333-86-4  
RTECS #:FF5800000  
OSHA PEL:3.5 MG/M3  
ACGIH TLV:3.5 MG/M3

Ingred Name:GRAPHITE  
CAS:7782-42-5  
RTECS #:MD9659600  
Fraction by Wt: 5%  
Other REC Limits:15 MPPCF (MFR)  
OSHA PEL:15 MPPCF RDUST  
ACGIH TLV:2 MG/M3 RDUST; 9293

Ingred Name:ZINC OXIDE  
CAS:1314-13-2  
RTECS #:ZN4810000  
Other REC Limits:5 MG/M3, C  
OSHA PEL:15MG/M3 TDUST/5 FUME  
ACGIH TLV:10MG/M3

===== Hazards Identification =====

LD50 LC50 Mixture:NONE SPECIFIED BY MANUFACTURER.  
Routes of Entry: Inhalation:YES Skin:NO Ingestion:NO  
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:IN FIRE SITUATION CELLS MAY RELEASE  
HAZ SUBSTANCES. ACUTE: INHAL: MAY CAUSE IRRITATION OR METAL FUME  
FEVER IN FIRE SITUATION. INGEST: INGREDIENTS ARE POISONOUS.  
CONTACT: MATERIALS MAY CAUSE SKIN OR EY E IRRITATION  
BY VAPOR OR  
DIRECT CONTACT. CHRONIC: NOT LIKELY UNDER NORMAL USE. MERCURY IS AN  
(EFTS OF OVEREXP)  
Explanation of Carcinogenicity:NOT RELEVANT.  
Effects of Overexposure:HLTH HAZ: EXPERIMENTAL TERATOGEN, GI & CNS  
POISON. MANGANESE IS AN EXPERIMENTAL TERATOGEN & MUTAGEN. ZINC  
OXIDE IS HUMAN PULMONARY DISEASE PRODUCER.  
Medical Cond Aggravated by Exposure:RESPIRATORY INFECTIONS AND  
DISEASES. SKIN DISEASES.

===== First Aid Measures =====

Firs  
t Aid:INHAL:REMOVE TO FRESH AIR, USE ARTF RESP IF NEEDED. SEEK MED  
ATTN. EYES:FLUSH @ LST 15 MIN W/FRESH RUNNING H\*2O, OCCAS LIFTING  
UPPER & LOWER LID. SEEK MED ATTN. SKIN:THORO WASH AFFECTED AREA  
UNTIL NO TRACE OF MATL REMAINS. INGEST:NOT LIKELY UNDER NORMAL  
USE. IF INGEST SHOULD OCCUR, GET IMMED MED ATTN. DRINK LG QTY OF  
H\*2O. EXPOS IN FIRE:REMOVE VICTIM FROM FIRE HAZ AREA TO FRESH AIR.  
SEEK MED ATTN.

===== Fire Fighting Measures =====

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Flash Point:NOT KNOWN  
Extinguishing Media:IN BULK STORAGE USE CO\*2, FOAM OR DRY POWDER. WATER  
MAY CAUSE ELECTRICAL SHORTS.  
Fire Fighting Procedures:WEAR NIOSH/MSHA APPROVED SCBA AND FULL  
PROTECTIVE EQUIPMENT TO AVOID INHALATION AND CONTACT WITH HAZ  
DECOMPOSITION PRODUCTS.  
Unusual Fire/Explosion Hazard:CELLS MAY RUPTURE WHEN EXPOSED TO  
EXCESSIVE HEAT.

===== Accidental Release Measures =====

Spill Release Procedures:BATTERIES ARE DRY SOLID & CAN BE

HNDLD EASILY  
W/SHOVELS/SIMILAR EQUIP. WHEN ACCUMULATING LG QTY OF UNDISCHARGED BATTERIES FOR DISP PACK IN NON-CONDUCTIVE INSULATING MATL. AVOID HEAT & H\*2O. USE RUB GL OVES FOR CLEANING UP SPILLS/HNDLG (SUPPDATA)

Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

===== Handling and Storage =====

Handling and Storage Precautions:DO NOT STORE UNPACKAGED CELLS TOGETHER SO CONTACTS CAN TOUCH. THIS SITUATION WILL RESULT IN CELL SHORTING AN D HEAT BUILD-UP.  
Other Precautions:DO NOT CHARGE, OVERHEAT (>160F), OR OPEN CELLS. AVOID CONTACT WITH WATER, SPARKS, OPEN FLAMES.

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

Respiratory Protection:NONE NEEDED UNDER NORMAL USE. USE NIOSH/MSHA APPROVED RESPIRATOR APPROPRIATE FOR EXPOSURE OF CONCERN .  
Ventilation:NONE NEEDED UNDER NORMAL USE.  
Protective Gloves:NONE REQ UNDER NORM USE. RUBB(SUPP DATA)  
Eye Protection:CHEMICAL WORKERS GOGGLES .  
Other Protective Equipm ent:NONE REQUIRED UNDER NORMAL USE.  
Work Hygienic Practices:NONE SPECIFIED BY MANUFACTURER.  
Supplemental Safety and Health  
SPILL PROC:INTERNAL PARTS OF CELLS. USE ADEQUATE VENTILATION AND AVOID CONTACT OF CELL INTERNAL COMPONENTS WITH SKIN OR EYES. PROT GLOVES: GLOVES FOR HANDLING INTERNAL COMPONENTS .

===== Physical/Chemical Properties =====

Boiling Pt:B.P. Text:>212F,>100C  
Vapor Density:>1  
Spec Gravity:>1  
Evaporation Rate & Reference:+1  
Solubility in W ater:NEGLIGIBLE  
Appearance and Odor:BLACK SOLID GRANULES W/NO APPRECIABLE ODOR, ENCASED IN BATERY ASSEMBLY.

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES  
KEEP AWAY FROM WATER.  
Stability Condition to Avoid:EXCESSIVE HEAT AND FIRE (HEATING ABOVE 160F), CHARGING.  
Hazardous Decomposition Products:IN FIRE SITUATION, MERCURY VAP, MANGANESE & ZINC OXIDE FUMES MAY BE EMITTED.

===== Disposal Considerations ==

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Waste Disposal Methods:DISPOSE OF IN ACCORDANCE WITH ALL FEDERAL,  
STATE, AND LOCAL REGULATIONS. DISPOSAL BY LANDFILL MAY BE  
PROHIBITED IN SOME AREAS.

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