

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
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ZIP:23691-5076
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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 EYE IRRITATION
BY VAPOR OR
DIRECT CONTACT. CHRONIC: NOT LIKELY UNDER NORMAL USE. MERCURY IS AN
(EFFECTS OF OVEREXPOSURE)
Explanation of Carcinogenicity:NOT RELEVANT.
Effects of Overexposure:HEALTH HAZ: EXPERIMENTAL TERATOGEN, GI & CNS
POISON. MANGANESE IS AN EXPERIMENTAL TERATOGEN & MUTAGEN. ZINC
OXIDE IS HUMAN PULMONARY DISEASE PRODUCER.
Medical Conditions Aggravated by Exposure:RESPIRATORY INFECTIONS AND
DISEASES. SKIN DISEASES.

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

First Aid:
Inhalation:REMOVE TO FRESH AIR, USE ARTIFICIAL RESPIRATION IF NEEDED. SEEK MEDICAL ATTENTION. EYES:FLUSH @ LEAST 15 MIN WITH FRESH RUNNING WATER, OCCASIONALLY LIFTING UPPER & LOWER LID. SEEK MEDICAL ATTENTION. SKIN:THOROUGHLY WASH AFFECTED AREA UNTIL NO TRACE OF MATERIAL REMAINS. INGEST:NOT LIKELY UNDER NORMAL USE. IF INGESTION SHOULD OCCUR, GET IMMEDIATE MEDICAL ATTENTION. DRINK LARGE QUANTITY OF WATER. EXPOSURE IN FIRE:REMOVE VICTIM FROM FIRE HAZARD AREA TO FRESH AIR. SEEK MEDICAL ATTENTION.

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

Flash Point:NOT KNOWN
Extinguishing Media:IN BULK STORAGE USE CARBON DIOXIDE, 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 HAZARDOUS 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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