

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 =====

=
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 ==

=====

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

Disclaimer (provided with this information by the compiling agencies):

This information is formulated for use by elements of the Department
of Defense. The United States of America in no manner whatsoever,
expressly or implied, warrants this information to be accurate and
disclaims all liability for its use. Any

person utilizing this

document should seek competent professional advice to verify and
assume responsibility for the suitability of this information to their
particular situation.