

NAVAL MINE WARFARE ENGINEERING ACTIVITY -- DISCHARGED BATTERY DRY CARBON-ZINC, MK 108- -- 6135-00-008-5344

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

Product ID:DISCHARGED BATTERY DRY CARBON-ZINC, MK 108-

MSDS Date:02/08/1991

FSC:6135

NIIN:00-008-5344

MSDS Number: BMDJN

=== Responsible Party ===

Company Name:NAVAL MINE WARFARE ENGINEERING ACTIVITY

Address:CODE 60 BUILDING 1959

City:YORKTOWN

State:VA

ZIP:2

3691-5076

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 =====

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Ingred Name:MERCURY (SARA III)  
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:ZINC CHLORIDE (SARA III)  
CAS:7646-85-7  
RTECS #:ZH1400000  
Fraction by Wt: 4.0%  
OSHA PEL:1 MG/M3/2 STEL  
ACGIH TLV:1 MG/M3/2STEL FUME93  
EPA Rpt Qty:1000 LBS  
DOT Rpt Qty:1000 LBS

Ingred Name:AMMONIUM CHLORIDE (SARA III)  
CAS:12125-02-9  
RTECS #:BP4550000  
Fraction by Wt: 4.0%  
OSHA PEL:10 MG/M3;20STEL FUME  
ACG  
IH TLV:10 MG/M3;20STEL FUME  
EPA Rpt Qty:5000 LBS  
DOT Rpt Qty:5000 LBS

Ingred Name:MANGANESE DIOXIDE  
CAS:1313-13-9  
RTECS #:OP0350000  
Fraction by Wt: 29.0%  
OSHA PEL:5 MG/M3 CEILING (MN)  
ACGIH TLV:5 MG/M3 (MN)

Ingred Name:CARBON BLACK  
CAS:1333-86-4  
RTECS #:FF5800000  
Fraction by Wt: 11.0%  
OSHA PEL:3.5 MG/M3  
ACGIH TLV:3.5 MG/M3

Ingred Name:GRAPHITE  
CAS:7782-42-5  
RTECS #:MD9659600  
OSHA PEL:15 MPPCF RDUST  
ACGIH TLV:2 MG/M3 RDUST; 9293

Ingred Name:MANGANESE (SARA III)  
CAS:7439-96-5  
RTECS #:OO927500

0  
OSHA PEL:(C) 5 MG/M3 DUST  
ACGIH TLV:5 MG/M3 DUST 9293

Ingred Name:ZINC OXIDE  
CAS:1314-13-2  
RTECS #:ZH4810000  
OSHA PEL:15MG/M3 TDUST/5 FUME  
ACGIH TLV:10MG/M3 TDUST; 9293

Ingred Name:AMMONIA (SARA III)  
CAS:7664-41-7  
RTECS #:BO0875000  
OSHA PEL:50 PPM  
ACGIH TLV:25 PPM/35 STEL; 9293  
EPA Rpt Qty:100 LBS  
DOT Rpt Qty:100 LBS

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

LD50 LC50 Mixture:NONE SPECIFIED BY MANUFACTURER.

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES

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Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO

Health Hazards Acute and Chronic:ACUTE: INHAL:MAY CAUSE IRRIT OR METAL  
FUME FEVER IN A FIRE SITUATION. INGEST:INGREDIENTS ARE POISONOUS.  
SKIN:MATERIALS MAY CAUSE SKIN OR EYE IRRITATION BY VAPOR OR DIRECT  
CONTACT. CHRONIC:NOT LIKELY UNDER NORMAL USE. IN A FIRE SITUATION,  
CELLS MAY RELEASE HAZARDOUS SUBSTANCES.

Explanation of Carcinogenicity:NOT RELEVANT

Effects of Overexposure:SEE HEALTH HAZARDS.

Medical Cond Aggravated by Ex  
posure:RESPIRATORY INFECTIONS AND  
DISEASES. SKIN DISEASES.

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

First Aid:INHAL:REMOVE TO FRESH AIR, USE ARTF RESP IF NEEDED. SEEK MD .  
EYE:FLUSH AT LEAST 15 MIN W/FRESH RUNNING H\*20, OCCAS LIFTING UPPER  
& LOWER EYELID. SEEK MD ATTEN. SKIN:THORO WASH AFFECTED AREA UNTIL  
NO TRACE OF MATL REMAINS. INGEST:NOT LIKELY UNDER NORM USE. IF  
INGEST SHOULD OCCUR, GET IMMED MD ATTEN. DRINK LG QTYS OF H\*20.  
EXPOS IN FIR

E:REMOVE VICTIM FROM FIRE HAZ AREA TO FRESH AIR. SEEK MD.

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Fire Fighting Measures  
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Extinguishing Media:IN BULK STORAGE USE CO\*2, FOAM OR DRY POWDER. WATER MAY CAUSE ELECTRICAL SHORTS.

Fire Fighting Procedures:IN BULK STORAGE AREAS, WEAR NIOSH/MSHA APPROVED SCBA AND PROTECTIVE CLOTHING TO AVOID INHALATION AND CONTACT WITH HAZARDOUS DECOMPOSITION PRODUCTS.

Unusual Fire/Explosion Hazard:CELLS MAY RUPTURE WHEN EXPOSED TO EXCESSIVE HEAT.

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Accidental Release Measures  
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Spill Release Procedures:BATTERIES ARE DRY SOLID & CAN BE HANDLED EASILY W/SHOVELS OR SIMILAR EQUIP. WHEN ACCUMULATING LG QUANTITIES OF UNDISCHARGED BATTERIES FOR DISPOSAL PACK IN NON-CONDUCTIVE INSULATING MATERIAL. AVOID HEAT & WATER. USE RUB GLOVES FOR CLEANING (SUPP DATA)

Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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Handling and Storage  
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Handling and

Storage Precautions:DO NOT STORE UNPACKAGED CELLS TOGETHER SO CONTACTS CAN TOUCH. THIS SITUATION WILL RESULT IN CELL SHORTING AND HEAT BUILD-UP.

Other Precautions:DO NOT CHARGE, OVERHEAT (GREATER THAN 160 F), OR OPEN CELLS.

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Exposure Controls/Personal Protection  
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Respiratory Protection:NONE NEEDED UNDER NORMAL USE. NIOSH/MSHA APPROVED RESPIRATOR APPROPRIATE FOR EXPOSURE OF CONCERN .

Ventilation:NONE NEEDED.

Protective Gloves:NONE REQ UNDER NORM USE;USE (SUPP DATA)

Eye Protection:CHEMICAL WORKERS GOGGLES .

Other Protective Equipment:NONE REQUIRED UNDER NORMAL USE.

Work Hygienic Practices:NONE SPECIFIED BY MANUFACTURER.

Supplemental Safety and Health

HAZ DECOMP PROD:AND ZINC CHLORIDE FUMES MAY BE EMITTED. PROTECTIVE GLOVES:RUBBER GLOVES TO HANDLE INTERNAL CELL COMPONENTS. SPILL PROC:UP SPILLS OR HANDLING INTERNAL PARTS OF CELLS. USE ADEQUATE VENT AND AVOID CONTACT OF CELL INTERNAL COMPONENTSWITH SKIN OR EYES.

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Physical/Chemical Properties =====

Boiling Pt:B.P. Text:>212F,>100C

Vapor Density:>1

Spec Gravity:>1

Evaporation Rate & Reference:>1

Solubility in Water:NEGLIGIBLE

Appearance and Odor:BLACK SOLID GRANULES WITH POSS AMMONIA ODOR,  
ENCASED IN BATTERY 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 160  
F), CHARG

ING

Hazardous Decomposition Products:IN A FIRE SITUATION, MERCURY VAP,  
AMMONIUM CHLORIDE, AMMONIA, NITROUS OXIDES, CHLORINE, MANGANESE,  
ZINC OXIDE(SUPP DATA)

===== Disposal Considerations =====

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

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