

NAVAL MINE WARFARE ENGINEERING ACTIVITY -- DISCHARGED BATTERY DRY CARBON-ZINC, MK 106- -- 6135-01-067-8331

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

Product ID:DISCHARGED BATTERY DRY CARBON-ZINC, MK 106-

MSDS Date:02/08/1991

FSC:6135

NIIN:01-067-8331

MSDS Number: BMDKP

==== 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

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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:YE

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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 Exposure: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 H²O, 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 H²O. EXPOS IN FIR

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

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

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 HEA

T.

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

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 HEA T & WATER. USE RUB GLOVES FOR CLEANING (SUPP DATA)

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 AND HEAT BUILD-UP.

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

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

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 COMPONENTS WITH 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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