

NAVAL MINE WARFARE ENGINEERING ACTIVITY -- DISCHARGED BATTERY MERCURY-ZINC, MK
131-0 -- 6135-01-096-1451

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

Product ID:DISCHARGED BATTERY MERCURY-ZINC, MK 131-0

MSDS Date:02/11/1991

FSC:6135

NIIN:01-096-1451

MSDS Number: BMDKS

=== Responsible Party ===

Company Name:NAVAL MINE WARFARE ENGINEERING ACTIVITY

Address:CODE 60 BUILDING 1959

City:YORKTOWN

State:VA

ZIP:2369

1-5076

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
CAS:7439-97-6
RTECS #:OV4550000
Fraction by Wt: 5%
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:MERCURIC OXIDE
CAS:21908-53-2
RTECS #:OW8750000
Fraction by Wt: 35%
OSHA PEL:0.1 MG HG/M3, S, C
ACGIH TLV:0.1 MG HG/M3

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:13
13-13-9
RTECS #:OP0350000
Fraction by Wt: 30%
OSHA PEL:5 MG/M3, C; 1 FUME
ACGIH TLV:5 MG/M3; 1 FUME

Ingred Name:MANGANESE
CAS:7439-96-5
RTECS #:OO9275000
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:SUPP DATA: PARTS OF CELLS. USE ADEQUATE VENTILATION & AVOID
CONTACT OF CELL INTERNAL COMPONENTS WITH SKIN OR EYES.
RTECS #:9999999ZZ

Ingred Name:PROT GLOVES:

USE; USE RUBBER GLOVES TO HANDLE INTERNAL CELL
COMPONENTS.
RTECS #:9999999ZZ

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

LD50 LC50 Mixture:NONE SPECIFIED BY MANUFACTURER.
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:IN A FIRE SITUATION, CELLS MAY RELEASE
HAZARDOUS SUBSTANCES. ACUTE: INHAL: MAY CAUSE IRRITATION OR METAL
FUME FEVER IN A FIRE SITUATION. INGEST: I
NGREDIENTS ARE POISONOUS.
SKIN/EYE: MATERIALS MAY CAUSE SKIN OR EYE IRRITATION BY VAPOR OR
DIRECT CONTACT. CHRONIC: NOT LIKELY UNDER NORMAL USE.
Explanation of Carcinogenicity:NOT RELEVANT
Effects of Overexposure:HEADACHE, COUGH, CHEST TIGHTNESS, CHEMICAL
PNEUMONITIS, HAND AND LIP TREMORS, MEMORY LOSS, DEPRESSION.
MANGANESE IS AN EXPERIMENTAL MUTAGEN. MANGANESE AND MERCURY ARE
EXPERIMENTAL TERATOGENS. MERCURY IS A HUMAN GASTROINTESTINAL TRACT
AND CENTRAL NERVOUS SYSTEM
POISON.
Medical Cond Aggravated by Exposure:RESPIRATORY INFECTIONS AND
DISEASES.

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

First Aid:INHAL:REMOVE TO FRESH AIR, USE ARTF RESP IF NEEDED. SEEK MD
ATTN. EYE:FLUSH AT LEAST 15 MIN W/FRESH RUNNING WATER, OCCASNLY
LIFTING UPPER & LOWER LID. SEEK MD ATTN. SKIN:THORO WASH AFTD AREA
UNTIL NO TRACE OF MATL REMAINS. SEEK MD ATTN IF NEEDED. INGEST:NOT
LIKELY UNDER NORM USE. IF INGEST SHOULD OCCUR, GET IMMED MD
ATTN.
DRINK LG QUANTITIES OF WATER. EXPOS IN FIRE:REMOVE FROM FIRE HAZ
(SUPP DATA)

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

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 .
Unusual Fire/Explosion Hazard:CELLS MAY RUPTURE WHEN EXPOS TO EXCESSIVE
HEAT. MAY RELEASE MERCURY VAP WHEN HEATED WHICH REACTS VIOLENTLY

W/CHLORINE, HYDROGEN PEROXIDE, MAGNESIUM, (SUPP DATA)

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

Spill Release Procedures: BATTERIES ARE A DRY SOLID & CAN BE HANDLED EASILY W/ SHOVELS/SIMILAR EQUIP. WHEN ACCUMULATING LG QUANTITIES OF UNDISCHARGED BATTERIES FOR DISP PACK IN NON-CONDUCTIVE INSULATING MATL. BATTERIES W/ LEAKY CELLS SHOULD BE PLACED IN AN IMPERVIOUS (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 & HEAT BUILD-UP.

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

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

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

Ventilation: MECHANICAL VENTILATION RECOMMENDED.

Protective Gloves: NONE REQUIRED UNDER NORMAL (ING 8)

Eye Protection: CHEMICAL WORKERS GOGGLES .

Other Protective Equipment: NONE REQUIRED UNDER NORMAL USE.

Work Hygienic Practices: NONE SPECIFIED BY MANUFACTURER.

Supplemental Safety and Health

VP: 0.0002 @ 25C. EXPLO HAZ: SULFUR, AND HYDROCARBONS. FIRST AID PROC: AREA TO FRESH AIR. SEEK MEDICAL ATTENTION. SPILL PROC: PLASTIC BAG, SEALED W/TAPE, AND THE BAG PLACED IN A STRONG FIBERBOARD BOX WITH

VERMICULITE TO ABSORB ELECTROLYTE. AVOID HEAT & WATER. USE RUB GLOVES FOR CLEANING SPILLS/HANDLING INTERNAL (ING 7)

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

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

Vapor Pres: SUPP DATA

Vapor Density: >1

Spec Gravity: >1 (H₂O=1)

Evaporation Rate & Reference: >1 (BUTYL ACETATE=1)

Solubility in Water: NEGLIGIBLE

Appearance and Odor: BLACK SOLID GRANULES, NO APPRECIABLE ODOR, ENCASED IN BATTERY ASSEMBLY.

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== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid: YES

KEEP AWAY FROM WATER. AVOID CHLORINE, HYDROGEN PEROXIDE, SULFUR, PHOSPHORUS, HYDROCARBONS, REDUCING AGENTS.

Stability Condition to Avoid: EXCESSIVE HEAT AND FIRE (HEATING ABOVE 160F), CHARGING.

Hazardous Decomposition Products: IN A FIRE SITUATION, MERCURY VAPOR, MANGANESE, CARBON MONOXIDE, NITROGEN OXIDES, AND ZINC OXIDE FUMES MAY BE EMITTED.

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

Waste Disposal Methods: DISPOSE OF I/A/W ALL FEDERAL, STATE AND LOCAL REGULATIONS. DISPOSAL BY LANDFILL MAY BE PROHIBITED IN SOME AREAS.

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