

MARATHON BATTERY CO -- BATTERY, STORAGE -- 6140-01-150-5380

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

Product ID: BATTERY, STORAGE

MSDS Date: 03/26/1990

FSC: 6140

NIIN: 01-150-5380

MSDS Number: BNWTG

=== Responsible Party ===

Company Name: MARATHON BATTERY CO

Address: 8301 IMPERIAL DRIVE

Box: 8233

City: WACO

State: TX

ZIP: 76714-8233

Country: US

Info Phone Num: 817-776-0650

Emergency Phone Num: 817-776-0650

CAGE: DO44

6

=== Contractor Identification ===

Company Name: MARATHON BATTERY COMPANY

Address: 8301 IMPERIAL DRIVE

Box: 8233

City: WACO

State: TX

ZIP: 76710

Phone: 301-321-5200

CAGE: DO446

Company Name: MARATHON POWER TECHNOLOGIES CO

Address: 8301 IMPERIAL DR

Box: City: WACO

State: TX

ZIP: 76712-6588

Country: US

Phone: 254-741-5405

CAGE: 74025

=====
Composition/Information on Ingredients
=====

Ingred Name: CADMIUM (SARA III)

CAS: 7440-43-9

RTECS #: EU9800000

Other REC Limits: NONE SPECIFIED

OSHA PEL: SEE 191

0.1027
ACGIH TLV:0.01 MG/M3 DUST;9394
EPA Rpt Qty:10 LBS
DOT Rpt Qty:10 LBS

Ingred Name:CADMIUM HYDROXIDE
CAS:21041-95-2
Other REC Limits:NONE SPECIFIED
OSHA PEL:0.1 MG/M3 (CD FUME)
ACGIH TLV:0.05 MG/M3 (CD FUME)

Ingred Name:NICKEL (SARA III)
CAS:7440-02-0
RTECS #:QR5950000
Other REC Limits:NONE SPECIFIED
OSHA PEL:1 MG/M3
ACGIH TLV:1 MG/M3; 9192

Ingred Name:NICKEL HYDROXIDE (SARA III)
CAS:12054-48-7
RTECS #:QR7040000
Other REC Limits:NONE SPECIFIED
OSHA PEL:1 MG NI/M3
ACGIH TLV:0.1 MG NI/M3;
9293
EPA Rpt Qty:10 LBS
DOT Rpt Qty:10 LBS

Ingred Name:POTASSIUM HYDROXIDE (SARA III)
CAS:1310-58-3
RTECS #:TT2100000
Other REC Limits:NONE SPECIFIED
OSHA PEL:C, 2 MG/M3
ACGIH TLV:C 2 MG/M3; 9192
EPA Rpt Qty:1000 LBS
DOT Rpt Qty:1000 LBS

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

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES
Reports of Carcinogenicity:NTP:NO IARC:YES OSHA:NO
Health Hazards Acute and Chronic:POTASSIUM HYDROXIDE: INHALATION OF
AIRBO

RNE DUST OR MIST MAY CAUSE DAMAGE TO THE UPPER RESPIRATORY TRACT AND EVEN TO THE LUNG TISSUE. CADMIUM/CADMIUM HYDROXIDE: MAY CAUSE IRRITATION OF MUCOUS MEMBRANE S. CHRONIC EXPOSURE MAY CAUSE IRREVERSIBLE LUNG INJURY, KIDNEY DISEASE & OTHER ADVERSE EFFECTS.

Explanation of Carcinogenicity:NICKEL/NICKEL COMPOUND ARE LISTED AS CARCINOGENIC TO HUMANS BY IARC.

Effects of Overexposure:POTASSIUM HYDROXIDE: INHALATION CAN PRODUCE CHEMICAL PNEUMONIA. THIS MATERIAL IS DESTRUCTIVE TO SKI

N TISSUE,

EYE TISSUE, & MOUTH, THROAT, STOMACH TISSUES. CADMIUM/CADMIUM HYDROXIDE: CAN PRODUCE DRYNES S OF THE MOUTH & THROAT, HEADACHE, NAUSEA & DIZZINESS. INGESTION CAN CAUSE NAUSEA, VOMITING, DIARRHEA & ABDOMINAL CRAMPS

Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

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

First Aid:POTASSIUM HYDROXIDE: FLUSH EYES FOR 15 MINUTES WITH WATER AND WASH SKIN TISSUE WITH WATER. IF PATIENT IS CONSCIOUS GIVE LARGE QUANTITIES OF WATER. DO NOT INDUCE VOMITING. GET EMERGENCY MEDICAL ATTENTI ON.

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

Extinguishing Media:USE EXTINGUISHING MEDIA APPROPRIATE FOR SURROUNDING FIRES.

Fire Fighting Procedures:FIRE FIGHTERS SHOULD WEAR PROPER PROTECTIVE EQUIPMENT AND A FULL FACED SELF CONTAINED BREATHING APPARATUS OPERATED IN THE POSITIVE PRESSURE MODE.

Unusual Fire/Explosion Hazard:CONTACT WITH STRONG OXIDIZERS MAY CAUSE

FIRE OE EXPLOSION. CADMIUM FUMES OR VAPOR ARE TOXIC AND CAN CAUSE DEATH.

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

Spill Release Procedures:BATTERY AND CELL CASES WILL NORMALLY CONTAIN MATERIALS OF CONCERN. USE INDUSTRIAL ABSORBENT TO COLLECT LIQUID POTASSIUM HYDROXIDE.

===== Handling and Storage =====

Handling and Storage Precautions:DO NOT INVERT. AVOID BREAKING, CRUSHING OR OTHERWISE DESTROYING THE PHY

SICAL INTEGRITY OF THE CELL
OR BATTERY.

Other Precautions:NONE SPECIFIED BY MANUFACTURER.

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

Respiratory Protection:WEAR A DUST OR MIST MASK WHEN HANDLING THE
POTASSIUM HYDROXIDE SOLUTION.

Ventilation:USE ADEQUATE LOCAL EXHAUST VENTILATION WHEN HANDLING THE
LIQUID IN THE BATTERY.

Protective Gloves:RUBBER GLOVES.

Eye Protection:EYE GOGGLES AND FACE SHIELD.

Other Protective Equipment:WEAR PROTECTIVE CLOTHING TO MINIMIZE
SKIN

CONTACT.

Work Hygienic Practices:WASH HANDS THOROUGHLY AFTER USE AND BEFORE
EATING, DRINKING OR SMOKING.

Supplemental Safety and Health

NONE

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

HCC:B1

Boiling Pt:=716.7C, 1322.F

Melt/Freeze Pt:=182.2C, 360.F

Spec Gravity:2.044

Solubility in Water:52% W/W

Appearance and Odor:WHITE; NO ODOR.

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES

STRONG OXIDIZI

NG AGENTS, NITRATES, NITRIC ACID.

Hazardous Decomposition Products:NONE

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

Waste Disposal Methods:DISPOSE OF CELLS AND BATTERIES IN ACCORDANCE
WITH LOCAL, STATE AND FEDERAL REGULATIONS.

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.