

MARATHON POWER TECHNOLOGIES -- BATTERY STORAGE BB-476/A -- 6140-01-061-2818

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

Product ID:BATTERY STORAGE BB-476/A

MSDS Date:03/26/1990

FSC:6140

NIIN:01-061-2818

MSDS Number: BRTCB

=== Responsible Party ===

Company Name:MARATHON POWER TECHNOLOGIES

Address:8301 IMPERIAL DRIVE

Box:8233

City:WACO

State:TX

ZIP:76714-8233

Country:US

Info Phone Num:817-776-0650

Emergenc

y Phone Num:817-776-0650 OR 800-424-9300(CHEMT)

Preparer's Name:T. MESSING

CAGE:74025

=== Contractor Identification ===

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) BP-765F, SG-8.642, MP-320.9F,  
INSOLUBLE NO ODOR

CAS:7440-43-9

RTECS #:EU9800000

Other REC Limits:NONE RECOMMENDED

OSHA PEL:S

EE 1910.1027  
ACGIH TLV:0.01 MG/M3 DUST;9394  
EPA Rpt Qty:10 LBS  
DOT Rpt Qty:10 LBS

Ingred Name:CADMIUM HYDROXIDE BP-N/A, SG-4.79, DECOMPOSES 300C,  
INSOLUBLE  
CAS:21041-95-2  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:0.1 MG/M3 (CD FUME)  
ACGIH TLV:0.05 MG/M3 (CD FUME)

Ingred Name:NICKEL (SARA III) BP-2730 F, SG 8.90, MP 1455F, INSOLUBLE  
CAS:7440-02-0  
RTECS #:QR5950000  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:1 MG/M3  
ACGIH TLV:1 MG/M3; 9293

Ingred Name:NICKEL HYDROXIDE (SARA III) SG-4.15,  
DECOMPOSES 230F,  
INSOLUBLE  
CAS:12054-48-7  
RTECS #:QR7040000  
Other REC Limits:NONE RECOMMENDED  
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) BP-1322F, SG-2.044,  
MP-360F, SOLUBLE 52% W/W  
CAS:1310-58-3  
RTECS #:TT2100000  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:C, 2 MG/M3  
ACGIH TLV:C 2 MG/M3; 9293  
EPA Rpt Qty:1000 LBS  
DOT Rpt Qty:1000 LBS

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

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Routes of Entry: Inhalation:YES Skin:NO Ingestion:YES  
Reports of Carcinogenicity:NTP:YES IARC:YES  
Health Hazards Acute and Chronic:LOW LEVEL EXPOSURE TO CADMIUM  
COMPOUNDS MAY CAUSE IRRIVERSIBLE LUNG INJURY, KIDNEY DISEASE AND  
OTHER ADVERSE EFFECTS. EXPOSURE TO POTASSIUM HYDROXIDE (KOH) MAY  
DAMAGE UPPER RESPIRATORY TRACT AND LUN G TISSUE WHICH COULD PRODUCE  
CHEMICAL PNEUMONIA.  
Explanation of Carcinogenicity:NICKEL LISTED BY IARC & NTP. CADMIUM  
LISTED BY NTP.  
Effec  
ts of Overexposure:IRRITATION OF MUCOUS MEMBRANES, DRYNESS OF  
MOUTH/THROAT, HEADACHE, NAUSEA AND DIZZINESS. ALLERGIC SKIN  
RASHES/SENSITIVITY.  
Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

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

First Aid:FLUSH EYES FOR 15 MIN WITH WATER AND WASH SKIN WITH WATER. IF  
INGESTED AND PERSON CONSCIOUS GIVE LARGE QUANTITIES OF WATER. DO  
NOT INDUCE VOMITING. GET MEDICAL ATTENTION.

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= Fire Fighting Measures =====

Flash Point:NON FLAMMABLE  
Lower Limits:NOT APPLICAE  
Upper Limits:NOT APPLICAE  
Extinguishing Media:USE EXTINGUISHING MEDIA APPROPRIATE FOR SURROUNDING  
FIRE.  
Fire Fighting Procedures:FIRE FIGHTER SHOULD WEAR PROPER PROTECTIVE  
EQUIPMENT AND SELF CONTAINED BREATHING APPARATUS WITH FULL  
FACE-PIECE OPERATED IN POSITIVE PRESSURE MODE.  
Unusual Fire/Explosion Hazard:CONTACT WITH STRONG OXIDIZING AGENTS,  
NITRATES, NITRIC ACID

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

Spill Release Procedures:USE INDUSTRIAL ABSORBENT TO COLLECT LIQUID  
POTASSIUM HYDROXIDE  
Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions:DO NOT INVERT. AVOID BREAKING CRUSHING  
OR OTHERWISE DESTROYING THE PHYSICAL INTEGRITY OF THE CELL OR  
BATTERY  
Other Precautions:USE ADAQUATE LOCAL EXHAUST VENTILATION WHEN HANDLING  
THE LI

QUID IN THE BATTERY I.E. POTASSIUM HYDROXIDE SOLUTION, WEAR A RESPIRAATOR, EYE GOGGLES AND FACE SHIELD, RUBBER GLOVES, PROTECTIVE CLOTHING TO MINIMIZE SKIN CONTACT.

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

Respiratory Protection:CONTACT LOCAL SAFETY/INDUSTRIAL HYGIENE OFFICE TO DETERMINE IF RESPIRATORY PROTECTION IS REQUIRED  
Ventilation:CONTACT LOCAL SAFETY/INDUSTRIAL HYGIENE OFFICE TO DETERMINE IF LOCAL EXHAUST VENTILATION IS NEEDED  
Protective Gloves:RUBBER GLOVES  
Eye Protection:CHEMICAL SAFETY GLASSES/GOGGLES  
Other Protective Equipment:PROTECTIVE CLOTHING  
Work Hygienic Practices:WASH THOROUGHLY AFTER HANDLING AND BEFORE EATING, DRINKING OR SMOKING. LAUNDER CONTAMINATED CLOTHING BEFORE REUSE.  
Supplemental Safety and Health

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

Boiling Pt:B.P. Text:765F,407C  
Melt/Freeze Pt:M.P/F.P Text:UNK  
Decomp Temp:Decomp Text:230F,110C  
Vapor Pres:UNK  
Vapor Density:UNK  
Spec Gravity:UNK  
pH:UNK  
Evaporation Rate & Reference:UNK  
Solubility in Water:KAOH 52%  
Appearance and Odor:NICAD BATT CONTAINS:CD & NI-SILVER METAL,CDOH & KOH-WHITE SALT,NIOH GRN-BLK SAL  
Percent Volatiles by Volume:UNK  
Corrosion Rate:UNK

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

Stability Indicator/Materials to Avoid:YES  
STRONG OXIDIZING AGENTS, NITRATES, NITRIC ACID  
Stability Condition to Avoid:NONE SPECIFIED BY MANUFACTURER.  
Hazardous Decomposition Products:NONE

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

Waste Disposal Methods: DISPOSAL MUST BE IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. COORDINATE WITH SUPPORTING INSTALLATION AND/OR MACOM ENVIRONMENTAL OFFICE PRIOR TO DISPOSAL

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