

MARATHON POWER TECHNOLOGIES -- BATTERY,STORAGE,28087-4 P -- 6140-01-071-8560

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Product Identification  
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Product ID:BATTERY,STORAGE,28087-4 P

MSDS Date:12/09/1992

FSC:6140

NIIN:01-071-8560

MSDS Number: BQXVW

=== 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/FAX -65

58

Emergency Phone Num:817-776-0650/800-424-9300(CHEMTREC)

Preparer's Name:B. MULLEE

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

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Composition/Information on Ingredients  
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Ingred Name:CADMIUM (SARA III)

CAS:7440-43-9

RTECS #:EU9800000

Other REC Limits:NONE RECOMMENDED

OSHA PEL:SEE 1910.1027

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 RECOMMENDED  
OSHA PEL:NOT ESTABLISHED.  
ACGIH TLV:NOT ESTABLISHED.

Ingred Name:NICKEL (SARA III)  
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)  
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)  
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

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===== Hazards Identification =====  
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LD50 LC50 Mixture:LD50 (ORAL RAT) IS 225 CADMIUM & CD(OH)2  
Routes of Entry: Inhalation:NO Skin:NO Ingestion:YES  
Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:YES  
Health Hazards Acute and Chronic:NON-SPILLABLE. IF B

**BROKEN OR LEAKING:**

ACUTE- REPEATED SKIN CONTACT MAY CAUSE SENSITIVITY AND ALLERIGC SKIN RASHES. INHALATION OF DUSTS OR FUMES MAY BE HARMFUL OR FATAL AND CAN DAMAGE LUNGS. DESTRUCTIVE TO EYES, SKIN, MOUTH, THROAT AND STOMACH TISSUES. CHRONIC- MAY CAUSE IRREVERSIBLE LUNG INJURY, KIDNEY DISEASE.

Explanation of Carcinogenicity:CONTAINS CADMIUM [7440-43-9] WHICH IS LISTED BY NTP AND IARC AND REGULATED BY OSHA AS A CARCINOGEN. ALSO NICKEL.

Effects of Overexposure:IF BATTERY

IS BROKEN OR LEAKING: INGESTION MAY

CAUSE VOMITING, DIARRHEA AND ABDOMINAL CRAMPS. OVEREXPOSURE TO VAPORS, FUMES OR DUST MAY CAUSE IRRITATION OF MUCOUS MEMBRANES, DRYNESS OF MOUTH AND THROA T, HEADACHE, NAUSEA AND DIZZINESS. MAY CAUSE SEVERE EYES AND SKIN IRRITATION AND BURNS.

Medical Cond Aggravated by Exposure:PERSONS WITH PRE-EXISTING SKIN DISORDERS OR EYE PROBLEMS OR IMPAIRED KIDNEY OR RESPIRATORY FUNCTION MAY BE MORE SUSCEPTIBLE TO THE EFFECTS OF THE PRODUCT'S

DUSTS, VAPORS OR FUMES.

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

First Aid:GET MEDICAL ATTENTION IMMEDIATELY. EYE/SKIN:IMMEDIATELY FLUSH WITH WATER FOR AT LEAST 15 MINUTES. HOLD EYELIDS OPEN. INHALED:REMOVE TO FRESH AIR & PROVIDE OXYGEN/CPR IF NEEDED. ORAL:DO NOT INDUCE VOMI TING. IF CONSCIOUS, DRINK LARGE AMOUNT OF WATER. CALL A PHYSICIAN IMMEDIATELY. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

===== Fire Fighting Mea  
sures =====

Flash Point:NONE

Extinguishing Media:WATER SPRAY, CO2, FOAM/DRY CHEMICAL. WATER SPRAY MAY BE USED TO KEEP FIRE EXPOSED CONTAINERS COOL.

Fire Fighting Procedures:WEAR FULL PROTECTIVE CLOTHING AND NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN THE POSITIVE PRESSURE MODE.

Unusual Fire/Explosion Hazard:CONTACT WITH STRONG OXIDIZERS MAY CAUSE FIRE OR EXPLOSION. CADMIUM FUMES OR VAPORS 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.

Neutralizing Agent: WEAK ACID FOR POTASSIUM, NICKEL & CADMIUM HYDROXIDE

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

Handling and Storage Precautions: STORAGE- DO NOT INVERT. AVOID BREAKING, CRUSHING OR OTHERWISE DESTROYING THE PHYSICAL INTEGRITY OF THE CELL OR BATTERY.

Other Precautions: DO NOT INCINERATE. DO NOT TOUCH BROKEN OR LEAKING BATTERIES. WASH THOROUGHLY AFTER HANDLING. KEEP OUT OF REACH OF CHILDREN.

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

Respiratory Protection: USE NIOSH APPROVED MIST OR DUST MASK WHEN HANDLING THE LIQUID IN THE BATTERY.

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

Protective Gloves: RUBBER WHEN HANDLING LEAKERS

Eye Protection: SAFETY GOGGLES/FACE SHIELD

Other Protective Equipment: EYE WASH STATION, QUICK DRENCH SHOWER AND IMPERVIOUS CLOTHING

Work Hygienic Practices: OBSERVE GOOD PERSONAL HYGIENE PRACTICES AND RECOMMENDED PROCEDURES. DO NOT WEAR CONTAMINATED CLOTHING.

Supplemental Safety and Health  
NON-SPILLABLE BATTERY, WET, PER MSDS.

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

HCC: N1

Boiling Pt: B.P. Text: 765F (CD)

Melt/Freeze Pt: M.P/F.P Text: 321F (CD)

Decomp Temp: Dec

omp Text: 230, NI(OH)<sub>2</sub>

Spec Gravity: 8.90 NI

Solubility in Water: 52% W/V KOH

Appearance and Odor: ORANGE-BLACK (NICKEL HYDROXIDE), SILVER METAL (CD, NI), WHITE (KOH, CD(OH)<sub>2</sub>)

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

Stability Indicator/Materials to Avoid: YES  
STRONG OXIDIZING AGENTS, NITRATES, NITRIC ACID

Stability Condition to Avoid: EXCESSIVE HEAT, FIRE

Hazardous Decomposition Products: CADMIUM OXIDE FUMES/VAPORS/DUST

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

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Waste Disposal Methods:CELLS AND BATTERIES MAY BE RETURNED AT SENDERS EXPENSE TO A PERMITTED TREATMENT, STORAGE, DISPOSAL FACILITY (TSDF). DISPOSAL MUST BE MADE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAW S AND REGULATIONS.

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