

ENERGIZER POWER SYSTEMS,DIV OF EVEREADY BATTERY CO -- NICKEL CADMIUM
BATTERY,BB-412/U -- 6140-01-154-0064

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

Product ID:NICKEL CADMIUM BATTERY,BB-412/U

MSDS Date:04/28/1997

FSC:6140

NIIN:01-154-0064

MSDS Number: CGMJK

=== Responsible Party ===

Company Name:ENERGIZER POWER SYSTEMS,DIV OF EVEREADY BATTERY CO

Address:US HIGHWAY 441N

City:ALACHUA

State:FL

ZIP:32615

Cou

ntry:US

Info Phone Num:216-835-7368

Emergency Phone Num:216-835-7368

CAGE:EO263

=== Contractor Identification ===

Company Name:ENERGIZER POWER SYSTEM, DIV. OF EVEREADY BATTERY

Address:US HIGHWAY 441N

Box:City:ALACHUA

State:FL

ZIP:32615

Country:US

Phone:440-835-7368

CAGE:EO263

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

Ingred Name:CADMIUM (SARA 313) (CERCLA) TOTAL OF INGREDIENTS 1-3 =
13-22%

CAS:7440-43-9

RTECS #:EU9800000

Fraction by Wt: SEE ING

Other REC Limits:N

ONE RECOMMENDED
OSHA PEL:0.2 MG/M3 DUST; Z-2
ACGIH TLV:0.01 MG/M3 DUST;9596
EPA Rpt Qty:10 LBS
DOT Rpt Qty:10 LBS

Ingred Name:CADMIUM OXIDE (SARA 302/313) (CERCLA)
CAS:1306-19-0
RTECS #:EV1925000
Fraction by Wt: SEE # 1%
Other REC Limits:NONE RECOMMENDED
OSHA PEL:0.2 MG (CD)/M3 DUST
ACGIH TLV:0.01 MG(CD)/M3; 9596

Ingred Name:CADMIUM HYDROXIDE
CAS:21041-95-2
Fraction by Wt: SEE # 1%
Other REC Limits:NONE RECOMMENDED
OSHA PEL:0.05 MG CD/M3
ACGIH TLV:0.05 MG CD/M3

Ingred Name:COBALT (SARA 313);
TOTAL PERCENTAGE OF INGREDIENTS 4, 5 AND
6 = 0.5 - 2.
CAS:7440-48-4
RTECS #:GF8750000
Fraction by Wt: SEE ING
Other REC Limits:NONE RECOMMENDED
OSHA PEL:0.1 MG/M3
ACGIH TLV:0.02 MG/M3; A3; 9495

Ingred Name:COBALT (2+) OXIDE
CAS:1307-96-6
RTECS #:GG2800000
Fraction by Wt: SEE # 4%
Other REC Limits:NONE RECOMMENDED

Ingred Name:COBALT (II) HYDROXIDE
CAS:21041-93-0
RTECS #:GG0904500
Fraction by Wt: SEE # 4%
Other REC Limits:NONE RECOMMENDED

Ingred Name:LITHIUM HYDROXIDE
CAS:1310-65-2
RTECS #:

OJ6307070
Fraction by Wt: 0 - 4%
Other REC Limits:NONE RECOMMENDED

Ingred Name:NICKEL (SARA 313) (CERCLA); TOTAL PERCENTAGE OF INGREDIENTS
8, 9 AND 10 = 20 - 32.

CAS:7440-02-0
RTECS #:QR5950000
Fraction by Wt: SEE ING
Other REC Limits:NONE RECOMMENDED
OSHA PEL:1 MG/M3
ACGIH TLV:1 MG/M3; 9495

Ingred Name:NICKEL OXIDE
CAS:1313-99-1
RTECS #:QR8400000
Fraction by Wt: SEE # 8%
Other REC Limits:NONE RECOMMENDED
OSHA PEL:1 MG/M3 AS NI
ACGIH TLV:1 MG/M3 AS NI

Ingred Name:NICKEL HYDROXIDE (SARA 31
3) (CERCLA)
CAS:12054-48-7
RTECS #:QR7040000
Fraction by Wt: SEE # 8%
Other REC Limits:NONE RECOMMENDED
OSHA PEL:1 MG(NI)/M3
ACGIH TLV:0.1 MG(NI)/M3; 9596
EPA Rpt Qty:10 LBS
DOT Rpt Qty:10 LBS

Ingred Name:POTASSIUM HYDROXIDE (CERCLA)
CAS:1310-58-3
RTECS #:TT2100000
Fraction by Wt: 0 - 4%
Other REC Limits:NONE RECOMMENDED
OSHA PEL:C 2 MG/M3
ACGIH TLV:C 2 MG/M3; 9596
EPA Rpt Qty:1000 LBS
DOT Rpt Qty:1000 LBS

Ingred Name:SODIUM HYDROXIDE (CERCLA)
CAS:1310-73-2
RTECS #:WB4900000
Fraction by Wt: 0

- 4%
Other REC Limits:NONE RECOMMENDED
OSHA PEL:2 MG/M3
ACGIH TLV:C 2 MG/M3; 9596
EPA Rpt Qty:1000 LBS
DOT Rpt Qty:1000 LBS

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

LD50 LC50 Mixture:LD50 (ORAL, RAT) IS NOT RELEVANT.
Routes of Entry: Inhalation:NO Skin:NO Ingestion:NO
Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:YES
Health Hazards Acute and Chronic:TARGET ORGANS:EYES, SKIN, RESPIRATORY,
GI TRACTS. ACUTE- BATTERY IS HERMETICALLY SEALED. CONTENTS OF AN

OPEN BATTERY CAN CAUSE IRRITATION OF RESPIRATORY TRACT, SEVERE EYE
IRRITATION & BURNS, SKIN IRRITATION, BURNS & DERMATITIS. INGESTION
CAN BE HARMFUL. CAUSES BURNS & POSSIBLE LIVER & KIDNEY INJURY.
CHRONIC- UNKNOWN.
Explanation of Carcinogenicity:CONTAINS CADMIUM [7440-43-9] WHICH IS
LISTED BY NTP AND IARC AND REGULATED BY OSHA AS A CARCINOGEN.
CONTAINS NICKEL.
Effects of Overexposure:NONE. CONTENTS OF AN OPEN BATTERY CAN CAUSE
IRRITATION, BURNS, CHEST PAIN, COUGHING,
SWEATING, CHILLS,
SHORTNESS OF BREATH, WEAKNESS, SALIVATION, CHOKING, NAUSEA,
VOMITING, DIARRHEA, ABDOMINAL PAIN, DIZZINESS, UNCONSCIOUSNESS,
ALLERGIC PULMONARY ASTHMA
Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

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

First Aid:GET MEDICAL HELP IF SYMPTOMS PERSIST. INHALED:REMOVE TO FRESH
AIR. CALL PHYSICIAN. EYES:FLUSH WITH WATER FOR 15 MINUTES. HOLD
EYELIDS OPEN. SEE PHYSICIAN. SKIN:W
ASH WITH SOAP & WATER. ORAL:IF
BATTERY/ OPEN BATTERY IS INGESTED, DO NOT INDUCEVOMITING OR GIVE
FOOD/DRINK. SEEK IMMEDIATE MEDICAL ATTENTION. CALL NATIONAL BATTERY
INGESTION HOTLINE FOR ADVICE & FOLLOWUP (202-625-3333) COLLECT,
DAY/NIGHT.

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

Flash Point:NONE
Lower Limits:NOT GIVEN
Upper Limits:NOT GIVEN
Extinguishing Media:USE MELT-X (GRAPHITE BASE), SAND, DRY GROUND
DOLOMITE OR SODA ASH FOR NICKEL-CADMIUM FI

RE. WATER FORMS HYDROGEN
GAS.

Fire Fighting Procedures:WEAR PROTECTIVE CLOTHING AND NIOSH-APPROVED
SELF-CONTAINED BREATHING APPARATUS.

Unusual Fire/Explosion Hazard:CADMIUM AND NICKEL FUMES 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
ELECTROLYTE. WEAR GLOVES. NEUTRALIZE WITH CITRIC ACID.

Neutralizing Agent:CITRIC ACID

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

Handling and Storage Precautions:STORE IN COOL PLACE, AWAY FROM
INCOMPATIBLE MATERIALS. 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. AVOID BREATHING FUMES OR
DUST. KEEP OUT OF REACH OF SMALL CHILDREN. DO NOT OPEN BATTERY
. DO
NOT OBSTRUCT SAFETY RELEASE VENTS ON BATTERIES.

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

Respiratory Protection:USE NIOSH APPROVED MIST OR DUST MASK WHEN
HANDLING THE LIQUID IN THE BATTERY. WEAR RESPIRATORY PROTECTION IF
TLV EXCEEDED.

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

Protective Gloves:NEOPRENE, NITRILE FOR LEAKERS

Eye Protection:SAFETY GOGGLES FOR LEAKERS/OPEN BATTERY

Other

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

NONE SPECIFIED BY MANUFACTURER.

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

HCC:B1

NRC/State Lic Num:NOT RELEVANT

Boiling Pt:B.P. Text:NOT GIVEN

Melt/Freeze Pt:M.P/F.P Text:NOT GIVEN

Decomp Temp:Decomp Text:NOT GIVEN

Vap

or Pres:NOT GIVEN
Vapor Density:NOT GIVEN
Spec Gravity:NOT RELEVANT
Viscosity:NOT RELEVANT
Evaporation Rate & Reference:NOT RELEVANT
Solubility in Water:NOT RELEVANT
Appearance and Odor:BATTERY - NO ODOR

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

Stability Indicator/Materials to Avoid:YES
ELECTROLYTE WILL REACT WITH ALUMINUM, ZINC, TIN, ACIDS, CHLORINATED AND
AROMATIC HYDROCARBONS, NITROCARBONS, HALOCARBON.
Stability Condition to Avoid:EXCESSIVE HEAT, FIRE
Haza
rdous Decomposition Products:POTASSIUM HYDROXIDE, NICKEL, CADMIUM,
CADMIUM OXIDE, NICKEL OXIDE, COBALT OXIDE

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

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. THIS IS HAZARDOUS
WASTE D006.

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