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

Product ID:CADNICA

MSDS Date:12/14/1992

FSC:6140

NIIN:00-214-8255

MSDS Number: BYBYG

=== Responsible Party ===

Company Name:SANYO ENERGY USA CORP

Address:2001 SANYO AVE

City:SAN DIEGO

State:CA

ZIP:92173

Country:US

Info Phone Num:619-661-6620

Emergency Phone Num:619-661-6620

CAGE:00JU0

=== Contractor Identification ===

Company Name:SANYO ENERGY CORP, BATTERY DIV

Address:200

RISER RD

Box:City:LITTLE FERRY

State:NJ

ZIP:07643

Country:US

Phone:201-641-2333

CAGE:0C8Z7

Company Name:SANYO ENERGY(U.S.A.) CORP.

Address:2001 SANYO AVE

Box:City:SAN DIEGO

State:CA

ZIP:92173

Country:US

Phone:619-661-6620

CAGE:00JU0

Company Name:TELECOMMUNICATION DEVICES INC

Address:2320 WISCONSIN AVE

Box:City:DOWNERS GROVE

State:IL

ZIP:60515-4091

Country:US

Phone:708-971-3460

CAGE:55150

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

Ingred Name:CADMIUM (SARA 313) (CERCL

A)
CAS:7440-43-9
RTECS #:EU9800000
Minumum % Wt:11.
Maxumum % Wt:26.
Other REC Limits:NONE RECOMMENDED
OSHA PEL:0.2 MG/M3 DUST; Z-2
ACGIH TLV:0.01 MG/M3 DUST;9495
EPA Rpt Qty:10 LBS
DOT Rpt Qty:10 LBS

Ingred Name:CADMIUM HYDROXIDE
CAS:21041-95-2
Minumum % Wt:11.
Maxumum % Wt:26.
Other REC Limits:NONE RECOMMENDED
OSHA PEL:0.05 MG CD/M3
ACGIH TLV:0.05 MG CD/M3

Ingred Name:NICKEL (SARA 313) (CERCLA)
CAS:7440-02-0
RTECS #:QR5950000
Minumum % Wt:8.
Maxumum % Wt:17.
Other REC Limits:NONE RECOMMENDED

OSHA PEL:1 MG/M3
ACGIH TLV:1 MG/M3; 9495

Ingred Name:NICKEL HYDROXIDE (SARA 313) (CERCLA)
CAS:12054-48-7
RTECS #:QR7040000
Minumum % Wt:5.
Maxumum % Wt:12.
Other REC Limits:NONE RECOMMENDED
OSHA PEL:1 MG(NI)/M3
ACGIH TLV:0.1 MG(NI)/M3; 9495
EPA Rpt Qty:10 LBS
DOT Rpt Qty:10 LBS

Ingred Name:POTASSIUM HYDROXIDE (CERCLA)
CAS:1310-58-3
RTECS #:TT2100000
< Wt:3.
Other REC Limits:NONE RECOMMENDED
OSHA PEL:C 2 MG/M3
ACGIH TLV:C 2 MG/M3; 9495
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- CANCER.

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:UNLIKELY

==== 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:WASH WITH SOAP & WATER. ORAL:IF BATTERY/ OPEN BATTERY IS INGESTED, DO NOT INDUCE VOMITING OR GIVE FOOD/DRINK. SEEK IMMEDIATE MEDICAL ATTENTION. CALL NATIONAL BATTERY INGESTION HOTLINE FOR ADVICE & FOLLOWUP (202-625-3333) COLLECT, DAY/NIGHT.

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

Flash Point:NONE

Extinguishing Media:USE MELT-X (GRAPHITE BASE), SAND, DRY GROUND DOLOMITE OR SODA ASH FOR NICKEL-CADMIUM FIRE. 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 OR ACETIC ACID.

Neutralizing Agent: CITRIC ACID OR OTHER WEAK ACIDS

===== 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 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

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

HCC: Z5

Spec Gravity: NOT RELEVANT

Viscosity: NOT RELEVANT

Evaporation Rate & Reference: NOT RELEVANT

Solubility in Water: NOT RELEVANT

Appearance and Odor: SEALED BATTERY - NO ODOR

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

Stability Indicator/Materials to Avoid: YES

ALDEHYDES, CARBAMATES, ALUMINUM, ZINC, TIN, ACIDS

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stability Condition to Avoid: EXCESSIVE HEAT (ABOVE 212F), FIRE, OPEN FLAMES, SPARKS

Hazardous Decomposition Products: POTASSIUM HYDROXIDE, NICKEL, CADMIUM, CADMIUM OXIDE, NICKEL OXIDE

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

Waste Disposal Methods: CELLS AND BATTERIES MAY BE RETURNED TO SANYO ENERGY CORP. FOR RECYCLING. DISPOSAL MUST BE MADE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS. HAZARDOUS WASTE D002, D0 06.

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