Product ID:NICKEL CADMIUM BATTERY, KR-2300SCE

MSDS Date:12/14/1992

FSC:6140

NIIN:01-080-2886

MSDS Number: CCLWQ === 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 Preparer's Name:PHILIP P. THURMAN

CAGE:00JU0

==

= Contractor Identification ===

Company Name: MATHEWS ASSOCIATES INC

Address:645 HICKMAN CIRCLE

Box:City:SANFORD

State:FL ZIP:32771 Country:US

Phone:407-323-3390

CAGE:4U927

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

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

Ingred Name: CADMIUM (SARA 313) (CERCLA)

CAS:7440-43-9

RTECS #:EU9800000 Fraction by Wt: 11-26% Other REC Limits:NO NE 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 HYDROXIDE

CAS:21041-95-2

Fraction by Wt: 11-26%

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 Fraction by Wt: 8-17%

Other REC Limits: NONE RECOMMENDED

OSHA PEL:1 MG/M3

ACGIH TLV:1 MG/M3; 9596

Ingred Name: NICKEL HYDROXIDE (SARA 313) (CERCLA)

CAS:12054-48-7

RTE

CS #:QR7040000 Fraction by Wt: 5-12%

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: 100C CAN CAUSE EVAPO OF

LIQ(KOH)ELECTROLYTE RESULTING IN RUPTURE OF CELL.POTENTIAL FOR EXPO

TODC FUMES DURING FIRE; USE SELF-CONTAIN BREATH APPARATUS.

Unusual Fire/Explosion Hazard: NONE SPECIFIED BY MANUFACTURER.

====== Accidenta

I Release Measures =========

Spill Release Procedures:SPILL/LEAK UNLIKELY-CELLS CONTAINED IN HERMETICALLY SEALED CASE.IF BREACHED DON PPE IMPERVIOLUS TO CAUSTIC MATL.ABSORB/PACK SPILL RESIDUES IN INERT MATL.DIPSO OF HAZ WASTE IAW FED REGS.

Neutralizing Agent: NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions:BATT DESIGN TO RECHARGE.LOSS OF VOLTAGE/CAP OF BATT TO SELFRECHARE DURING PROL STORAGE DURING PROL

STORAGE UNAVOIDABLE. CHARGE BEF USE-OBSERVE RATE.

Other Precautions:SPECIAL ENCAPSULATION/SEALING REQMTS/SOLDER/WELD TO BATT CASE CONSULT SANYO ENERGY CORP FOR PROPER PRECAUT TO PREVENT SEAL DMG/EXT SHORT CIRCUIT/CELL HAZ PRECAUT/LIMITATIONS.STORE IN COOL PLACE;PREVEN T CONDENSATION.HI TEMP REDUCE LIFE.

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

Respiratory Protection: NOT REQUIRED UNDER NORMAL USE.

Ventilation: NOT REQUIRED UNDER NORMA

L USE.

Protective Gloves: NOT REQUIRED UNDER NORMAL USE.

Eye Protection: NOT REQUIRED UNDER NORMAL USE.

Other Protective Equipment: NONE SPECIFIED BY MANUFACTURER.

Work Hygienic Practices: NONE SPECIFIED BY MANUFACTURER.

Supplemental Safety and Health

CD:SILVER-WHITE,BLUE-TINGED,LUSTROUS METAL,BPT/MPT(C):764/321,SPEC GRAV:8.65,H2O INSOL;CD(OH)2:POWDER,SPEC GRAV:4.79H2O INSOL;NI:POWDER,BPT/MPT:2834/1555,SPEC GRAV:8.90,H2O INSOL;NI(OH)2:GREEN POWDER, (LIQ/PASTE IN BATT ACTS AS ELECTRO)

,H2OINSOL;KOH:WHITE/SLIGHTLY YELLOW,(LIQ/PASTE IN BATT ACTS AS ELECTRO),H2O SOL

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

HCC:T6

Boiling Pt:B.P. Text:SUPPLEMENTA

Melt/Freeze Pt:M.P/F.P Text:SUPPLEMENTL

Decomp Temp:Decomp Text:NP

Vapor Pres:NA

Vapor Density:NP

Spec Gravity: SUPPLEMENTAL

pH:NP

Viscosity:NP

Evaporation Rate & Department Reference: NP Solubility in Water: SUPPLEMENTAL. Appearance and Odor: SUPPLEMENTAL.

Percent Volatiles by Volume:NP

Corrosion Rate:NP

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NONE SPECIFIED BY MANUFACTURER.
Stability Condition to Avoid:NONE SPECIFIED BY MANUFACTURER.
Hazardous Decomposition Products: NONE SPECIFIED BY MANUFACTURER.

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

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

Waste Disposal Methods:DON'T INCINERATE(CD EMISSIONS)/SUBJ TO TEMP >100C-VAN VAP LIQ ELECTROLYTE CAUSING CELL RUPTURE.HNDL IAW ALL APPLICABLE FED LAWS/REGS.

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