

SAFT AMERICA INC, POWER SOURCES DIV -- NICKEL CADMIUM SEALED CELL BATTERY --  
6140-00-883-2055

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

Product ID:NICKEL CADMIUM SEALED CELL BATTERY

MSDS Date:10/03/1994

FSC:6140

NIIN:00-883-2055

MSDS Number: BXQFR

=== Responsible Party ===

Company Name:SAFT AMERICA INC, POWER SOURCES DIV

Address:711 INDUSTRIAL BLVD

Box:1886

City:VALDOSTA

State:GA

ZIP:31603

Country:US

In

fo Phone Num:912-247-2331

Emergency Phone Num:912-247-2331

CAGE:09052

=== Contractor Identification ===

Company Name:SAFT AMERICA INC.

Address:711 INDUSTRIAL BLVD

Box:1886

City:VALDOSTA

State:GA

ZIP:31602

Country:US

Phone:912-247-2331

CAGE:09052

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

Ingred Name:CADMIUM (SARA 313) (CERCLA) TOTAL OF INGREDIENTS 1, 2 & 3  
IS 17%.

CAS:7440-43-9

RTECS #:EU9800000

Fraction by Wt: 17%

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  
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: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; 9495

Ingred Name:NICKEL (SARA 313) (CERCLA) THE TOTAL OF INGREDIENTS  
4, 5 &  
6 IS 19%.  
CAS:7440-02-0  
RTECS #:QR5950000  
Fraction by Wt: 19%  
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  
Fraction by Wt: SEE #4%  
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:NICKEL OXIDE  
CAS:1313-99-1  
RTECS #:QR8400000  
Fraction by Wt: SEE #4%  
Other REC Limits:NONE RECOMMENDED  
OSHA P

EL:1 MG/M3 AS NI  
ACGIH TLV:1 MG/M3 AS NI

Ingred Name:POTASSIUM HYDROXIDE (CERCLA)  
CAS:1310-58-3  
RTECS #:TT2100000  
Fraction by Wt: 5%  
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

Ingred Name:COBALT (SARA 313)  
CAS:7440-48-4  
RTECS #:GF8750000  
Fraction by Wt: 1%  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:0.1 MG/M3  
ACGIH TLV:0.02 MG/M3; A3; 9495

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

LD50 LC5  
0 Mixture:PRODUCT'S LD50 (ORAL RAT) WAS NOT STATED  
Routes of Entry: Inhalation:NO Skin:NO Ingestion:NO  
Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:YES  
Health Hazards Acute and Chronic:EXPOSURE TO HAZARDOUS COMPONENTS WILL  
HAPPEN ONLY IF BATTERY CASE IS BROKEN. IF CASE IS  
BROKEN:ELECTROLYTE IS CORROSIVE TO BODY TISSUES, CAUSING SEVERE  
BURNS. METALS MAY CAUSE IRRITATION. METAL FUMES INHALED OR METALS  
INGESTED ARE TOXIC.  
Explanation of Carcinogenicity:NIOSH RECOMMENDS TH  
AT NICKEL & CADMIUM  
BE TREATED AS OCCUPATIONAL CARCINOGENS.  
Effects of Overexposure:SEVERE IRRITATION, BURNS TO BODY TISSUES  
CONTACTED. EYE:SEVERE IRRITATION, BURNS. SKIN:BURNS, CHRONIC  
ECZEMA, NICKEL ITCH. INALATION (FUMES):RESPIRATORY IRRITATION,  
COUGH, HEADACHE, VOMITING, CHEST PA IN, CHILLS. INGESTION:BURNS,  
NAUSEA, G/I DISORDERS.  
Medical Cond Aggravated by Exposure:MFR GAVE NO INFORMATION ON MSDS.

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

Fir

st Aid:IF IRRITATION PERSISTS OR IS SEVERE, GET MEDICAL ATTENTION.  
EYE:FLUSH W/WATER FOR 15 MIN. SKIN:WASH W/SOAP & WATER. REMOVE  
CONTAMINATED CLOTHING & LAUNDER BEFORE REUSE. INHALED:REMOVE FROM  
EXPOSURE. A ID OR RESTORE BREATHING AS NEEDED. INGESTED:DO NOT  
INDUCE VOMITING. GIVE 1-2 GLASSES OF MILK OR WATER TO DRINK. GET  
IMMEDIATE MEDICAL ATTENTION. NOTHING BY MOUTH IF UNCONSCIOUS.

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

Extinguishing Media:CAR  
BON DIOXIDE, SAND

Fire Fighting Procedures:USE SELF-CONTAINED BREATHING APPARATUS TO  
AVOID BREATHING TOXIC FUMES. WEAR PROTECTIVE CLOTHING TO PREVENT  
CONTACT W/ELECTROLYTE SOLUTION.

Unusual Fire/Explosion Hazard:ELECTROLYTE IS CORROSIVE TO BODY TISSUES.  
REACTS W/ORGANIC COMPOUNDS & METALS. RELEASES EXPLOSIVE HYDROGEN  
GAS. RELEASES TOXIC CADMIUM FUMES IN FIRE.

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

Spill Release Procedures:ELECTROLYTE SPILL: FLUSH W/  
WATER & NEUTRALIZE  
W/DILUTE ACID.

Neutralizing Agent:DILUTE ACID

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

Handling and Storage Precautions:THESE CELLS & BATTERIES CONSTRUCTED  
FROM THEM MAY BE HIGHLY CHARGED& CAPEABLE OF HIGH ENERGY DISCHARGE.  
TAKE CARE TO HANDLE CELLS PROPERLY.

Other Precautions:AVOID SHORTING OR MISUSE THAT WILL RESULT IN RAPID  
UNCONTROLLED ELECTRICAL, CHEMICAL OR HEAT ENERGY RELEASE. DO NOT  
SHORT CIRCUIT - MAY CAUSE BURNS. DO  
NOT BREAK OPEN CELL. DO NOT  
ALLOW EXPOSED AN FL AME OR SPARK TO COME NEAR THE CELLS.

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

Respiratory Protection:USE NIOSH/MSHA APPROVED RESPIRATOR IF CELL IS  
BROKEN OPEN DURING FIRE TO MAINTAIN EXPOSURE LEVELS BELOW TWA FOR  
CADMIUM & NICKEL COMPONENTS.

Ventilation:USE LOCAL EXHAUST AND MECHANICAL (GENERAL) VENTILATION.  
MAINTAIN OSHA PEL.

Protective Gloves:SYNTHETIC RUBBER FOR ELECTROLYTE EXPOS.

Eye Protection:SPLAS

H GOGGLES IF CELL ACTIVATES

Other Protective Equipment: RUBBER APRON OR EQUIPMENT IF EXPOSURE TO ELECTROLYTE SOLUTION IS LIKELY.

Work Hygienic Practices: KEEP FOOD AND TOBACCO AWAY FROM WORK AREA.

Supplemental Safety and Health

NONE

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

HCC:N1

NRC/State Lic Num:NONE

Spec Gravity:1.170-1.250

Evaporation Rate & Reference:NOT DETERMINED

Solubility in Water:SEE APPEARANCE

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

=====

Stability Indicator/Materials to Avoid:YES

ALUMINUM, ZINC, TIN, ACTIVE METALS. ACID, AROMATIC HYDROCARBONS, NITROCARBONS, HALOCARBONS.

Stability Condition to Avoid:MFR GAVE NO INFORMATION ON MSDS.

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

Conditions to Avoid Polymerization:WILL NOT OCCUR.

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

Waste Disposal Methods:STORAGE BATTERY IS HAZARDOUS WASTE UNDER RCRA

IT MAY BE RETURNED TO SAFT FOR RECYCLING. BATTERY IS TCLP TOXIC. BATTERY & ELECTROLYTE SOLUTION IS CORROSIVE. IF NOT RECYCLED, MUST BE DISPOSED I/A/W FED ERAL, STATE & LOCAL REGULATIONS.

Disclaimer (provided with this information by the compiling agencies):

This information is formulated for use by elements of the Department of Defense. The United States of America in no manner whatsoever, expressly or implied, warrants this information to be accurate and disclaims all liabi

lity for its use. Any person utilizing this

document should seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation.