

SAFT AMERICA INC, POWER SOURCES DIV -- NICKEL CADMIUM SEALED CELL  
BATTERY,402474-100 -- 6140-01-014-0595

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

Product ID:NICKEL CADMIUM SEALED CELL BATTERY,402474-100

MSDS Date:10/03/1994

FSC:6140

NIIN:01-014-0595

MSDS Number: CDYWR

=== Responsible Party ===

Company Name:SAFT AMERICA INC, POWER SOURCES DIV

Address:711 INDUSTRIAL BLVD

Box:1886

City:VALDOSTA

State:GA

ZI

P:31603

Country:US

Info Phone Num:912-247-2331

Emergency Phone Num:912-247-2331/800-424-9300(CHEMTREC)

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 PERCENTAGE OF  
INGREDIENTS 1, 2 AND 3: 17

CAS:7440-43-9

RTECS #:EU9800000

Fraction by Wt:

SEE ING  
Other REC Limits:NONE 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: 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; 9596

Ingr  
ed Name:NICKEL (SARA 313) (CERCLA); TOTAL PERCENTAGE OF INGREDIENTS  
4, 5 AND 6: 19  
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; 9596

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; 9596  
EPA Rpt Qty:10 LBS  
DOT Rpt Qty:10 LBS

Ingred Name:NICKEL OXIDE  
CAS:1313-99-1  
RTECS #:QR8

400000  
Fraction by Wt: SEE # 4%  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL: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: 8%  
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:COBALT (SARA 313)/COBALT HYDROXIDE  
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; 9596

===== 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- IN CASE OF FIRE/CELL RUPTURE, ELECTROLYTE CAN  
CAUSE SEVERE IRRITATION/BURNS TO TISSUE CONTACTED. CAN CAUSE  
BLINDNESS. NICKEL MAY CAUSE SKIN SENSITIZATION  
. INGESTION CAN BE  
HARMFUL/FATAL. CHRONIC- CADMIUM MAY CAUSE LUNG/KIDNEY DAMAGE.  
NICKEL MAY CAUSE LUNG DAMAGE.  
Explanation of Carcinogenicity:CONTAINS CADMIUM [7440-43-9] WHICH IS  
LISTED BY NTP AND IARC AND REGULATED BY OSHA AS A CARCINOGEN. ALSO  
CONTAINS NICKEL  
Effects of Overexposure:NONE UNDER NORMAL CONDITIONS OF USE. IF LEAKING  
OR INCINERATED: SEVERE IRRITATION, BURNS, CHEST PAIN, COUGHING,  
SWEATING, CHILLS, SHORTNESS OF BREATH, WEAKNESS, BLINDNESS, NICKEL  
ITCH

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

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

First Aid: GET MEDICAL ATTENTION IMMEDIATELY. EYE/SKIN: IF CONTACT WITH POTASSIUM HYDROXIDE ELECTROLYTE, IMMEDIATELY FLUSH WITH WATER FOR AT LEAST 15 MINUTES. HOLD EYELIDS OPEN. MILD ACID (VINEGAR) MAY BE USED TO NEUTRALIZE KOH ON SKIN. INHALED: REMOVE TO FRESH AIR. PROVIDE OXYGEN/CPR IF NEEDED. ORAL: DO NOT INDUCE VOMITING. IF CONSCIOUS, DRINK LARGE AMOUNT OF WATER OR MILK.

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

Flash Point: NONE  
Lower Limits: NOT RELEVANT  
Upper Limits: NOT RELEVANT  
Extinguishing Media: WATER SPRAY, CARBON DIOXIDE, FOAM OR DRY CHEMICAL FOR SURROUNDING FIRE. USE WATER SPRAY TO COOL FIRE EXPOSED CONTAINERS.  
Fire Fighting Procedures: WEAR PROTECTIVE CLOTHING AND NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS. HAZARDOUS DECOMPOSITION PRODUCTS MAY BE FORMED.  
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 POTASSIUM HYDROXIDE. WEAR RUBBER GLOVES. NEUTRALIZE WITH CITRIC ACID.  
Neutralizing Agent: CITRIC ACID

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

Handling and Storage Precautions: DO NOT SHORT CIRCUIT. 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. KEEP OUT OF REACH OF SMALL CHILDREN. NO SMOKING DURING BATTERY CHARGING. ALWAYS USE EXTREME CARE. AVOID

OPEN FLAME.

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

Respiratory Protection:IF INCINERATED, USE NIOSH-APPROVED  
SELF-CONTAINED BREATHING APPARATUS OR SUPPLIED AIR RESPIRATOR WITH  
FULL FACEPIECE, OPERATED IN POSITIVE PRESSURE MODE.

Ventilation:USE ADEQUATE LOCAL EXHAUST VENTILATION WHEN FUMES PRESENT.

Protective Gloves:NEOPRENE, NITRILE FOR LEAKERS

Eye Protection:CHEMICAL SPLASH GOGGLES FOR LEAKERS

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

IMPERVIOUS CLOTHING

Work Hygienic Practices:OBSERVE GOOD INDUSTRIAL HYGIENE PRACTICES AND  
RECOMMENDED PROCEDURES. WASH THOROUGHLY BEFORE EATING,  
DRINKING/SMOKING.

Supplemental Safety and Health

THE MANUFACTURER STATES EACH SEALED NICKEL CADMIUM BATTERY IS NOT  
HAZARDOUS AND IS NOT REGULATED.

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

HCC:N1

NRC/State Lic Num:NOT RELEVANT

Spec Gravity:1.17-1.25 ELECT

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

ORGANIC CHEMICALS, ACIDS, METALS SUCH AS ZINC, ALUMINUM, TIN,  
CHLORINATED AND AROMATIC HYDROCARBONS, NITROCARBONS

Stability Condition to Avoid:EXCESSIVE HEAT, FIRE

Hazardous Decomposition Products:TOXIC FUMES OF CADMIUM OXIDE, NICKEL  
OXIDE, CADMIUM, POTASSIUM HYDROXIDE

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==== Disposal Considerations =====

Waste Disposal Methods:CELLS AND BATTERIES MAY BE RETURNED TO SAFT FOR RECYCLING OR AT SENDERS EXPENSE TO A PERMITTED TREATMENT, STORAGE, DISPOSAL FACILITY (TSDF). DISPOSAL MUST BE MADE IN ACCORDANCE WITH ALL APPLICABLE FED ERAL, STATE AND LOCAL LAWS AND REGULATIONS.

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