

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

ZIP:31603

Country:US

Info Phone Num:912-247-2331

Emergency Phone N

um: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 DU

ST; 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

Ingred Name:NICKEL (SARA 313) (CERCLA); TOTAL PERCENTAGE OF INGREDIE
NTS
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 #:QR8400000
Fraction by Wt: SEE # 4%
Other REC Limits:NONE RECOMMENDE

D

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 SEN SITIZATION. 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
Medical Cond Aggravated by Exposure:PERSONS WITH PRE-EXISTING SKI

N

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:REMOVETO 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 =====

n =====

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

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

Waste Dispo

sal 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 FEDERAL, STATE AND LOCAL LAWS AND 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 liability 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.