

SAFT AMERICA INC PORTABLE BATTERY DIVISION -- NICAD AIRCRAFT BATTERY --
6140-01-071-8560

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

Product ID:NICAD AIRCRAFT BATTERY
MSDS Date:10/03/1994
FSC:6140
NIIN:01-071-8560
MSDS Number: BYHJS
=== Responsible Party ===
Company Name:SAFT AMERICA INC PORTABLE BATTERY DIVISION
Address:711 INDUSTRIAL BLVD
Box:1886
City:VALDOSTA
State:GA
ZIP:31601
Country:US
Info Phone Nu
m:912-247-2331
Emergency Phone Num:912-247-2331
CAGE:67237
=== Contractor Identification ===
Company Name:SAFT AMERICA INC PORTABLE BATTERY DIVISION
Address:711 INDUSTRIAL BLVD
Box:1886
City:VALDOSTA
State:GA
ZIP:31601
Country:US
Phone:912-247-2331
CAGE:67237
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:NICKEL OXIDE
CA

S:1313-99-1
RTECS #:QR8400000
Fraction by Wt: 18% %
Other REC Limits:NONE RECOMMENDED
OSHA PEL:1 MG/M3 AS NI
ACGIH TLV:1 MG/M3 AS NI

Ingred Name:POTASSIUM HYDROXIDE (SARA III)
CAS:1310-58-3
RTECS #:TT2100000
Fraction by Wt: 19% %
Other REC Limits:NONE RECOMMENDED
OSHA PEL:C, 2 MG/M3
ACGIH TLV:C 2 MG/M3; 9192
EPA Rpt Qty:1000 LBS
DOT Rpt Qty:1000 LBS

Ingred Name:CADMIUM OXIDE (SARA III)
CAS:1306-19-0
RTECS #:EV1925000
Fraction by Wt: 13% %
Other REC Limits:NONE RECOMMENDED
OSHA PEL:6B RULE IN
PROCESS
ACGIH TLV:0.05 MG CD/M3

Ingred Name:COPPER (SARA III)
CAS:7440-50-8
RTECS #:GL5325000
Fraction by Wt: 9% %
Other REC Limits:NONE RECOMMENDED
OSHA PEL:0.1MG/M3 FUME/1 DUST
ACGIH TLV:0.2MG/M3 FUME; 9192
EPA Rpt Qty:5000 LBS
DOT Rpt Qty:5000 LBS

Ingred Name:NYLON II
CAS:25587-80-8
Fraction by Wt: 15% %
Other REC Limits:NONE RECOMMENDED

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

LD50 LC50 Mixture:NOT GIVEN FOR PRODUCT AS A WHOLE
Routes of Entry: Inhalation:YES

Skin:YES Ingestion:YES

Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:NO

Health Hazards Acute and Chronic:CONTACT WITH ELECTROLYTE SOLUTION CAUSES RAPID, SEVERE DAMAGE TO TISSUE. MAY CAUSE EYE DAMAGE, BLINDNESS, SERIOUS BURNS TO SKIN TISSUES. INGESTION MAY CAUSE TISSUE DAMAGE TO THROAT AND GASTRO/RESPIRATORY TRACT, NAUSEA, INTESTINAL DISORDERS.INHALATION MAY CAUSE RESPIRATORY TRACT IRRITATION, HEADACHE, VOMITING, EDEMA.

Explanation of Carcinogenicity:NICKEL AND CADMIUM ARE SUSPECTED CARCINOGENS.

Effects of Overexposure:BURNS TO ANY TISSUE CONTACTED. SEVERE EYE DAMAGE, BLINDNESS, IRRITATION. SKIN BURNS, SKIN SENSATIZATION, ECZEMA, NICKEL ITCH. NAUSEA, INTESTINAL DISORDERS, RESPIRATORY TRACT IRRITATION, DRY THROAT, HEADACHE, VOMITING, CHEST PAIN, CHILLS, PULMONARY EDEMA, BREATHING DIFFICULTY, PROSTRATION, KIDNEY DAMAGE.

Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

===== First Aid Measures
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First Aid:EYES: FLUSH WITH WATER FOR 15 MINUTES WHILE HOLDING EYELIDS OPEN. GET MEDICAL ATTENTION. SKIN: REMOVE CONTAMINATED CLOTHING. WASH WITH SOAP AND WATER. IF IRRITATION PERSIST, GET MEDICAL ATTENTION. INHALATION: REMOVE TO FRESH AIR. RESTORE BREATHING. GET MEDICAL ATTENTION. INGESTION: DO NOT INDUCE VOMITING. GIVE WATER OR MILK. DO NOT GIVE ANYTHING IF UNCONSCIOUS. GET MEDICAL ATTENTION.

===== Fire Fighting Measures =====
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Flash Point:NOT GIVEN

Lower Limits:NOT GIVEN

Upper Limits:NOT GIVEN

Extinguishing Media:NONE SPECIFIED BY MANUFACTURER.

Fire Fighting Procedures:FIRE FIGHTERS SHOULD WEAR SELF CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE GEAR. DISCONNECT OR CUT ALL CABLES TO AND FROM BATTERY.

Unusual Fire/Explosion Hazard:ELECTROLYTE SOLUTION IS CORROSIVE TO ALL HUMAN TISSUES. IT WILL REACT VIOLENTLY WITH MANY ORGANIC CHEMICALS. CADMIUM FUMES MAY BE RELEASED IN HIGH TEMPERATURE

S.

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

Spill Release Procedures:SMALL ELECTROLYTE SPILL: FLUSH WITH WATER AND
NEUTRALIZE WITH DILUTE CITRIC ACID. LARGE SPILL: CONTAIN MATERIAL
IN SUITABLE CONTAINERS OR HOLDING AREA. DO NOT ALLOW MATERIAL TO
ENTER SEWERS OR WATERWAYS. RECOVER WITH VACUUM TRUCK AND DISPOSE
OF.

Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage

Precautions:THESE CELLS AND THE BATTERIES

CONSTRUCTED FROM THE MAY BE HIGHLY CHARGED AND ARE CAPABLE OF HIGH
ENERGY DISCHARGE. CARE SHOULD BE TAKEN IN HANDLING.

Other Precautions:DO NOT TRANSPORT BATTERIES WITHOUT VENT CAP IN PLACE.

WHEN REMOVING BATTERY FROM SERVICE VISUALLY INSPECT FOR LEAKAGE
PRIOR TO HANDLING. IF LEAKAGE HAS OCCURRED FOLLOW SPILL MANAGEMENT
PROCEDURES. DO NOT ALLOW NEAR FLAME OR SPARK.

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

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Respiratory Protection:IF EXPOSURE MAY OR DOES EXCEED OCCUPATION
EXPOSURE LIMITS USE A NIOSH-APPROVED RESPIRATOR TO PREVENT
OVEREXPOSURE. IN ACCORD WITH 29 CFR 1910.134 USE EITHER AN
ATMOSPHERE-SUPPLYING RESPIRATOR OR AN AIR-PURIFYING RESPIRATOR.

Ventilation:EXHAUST VENTILATION SUFFICIENT TO KEEP AIRBORNE
CONCENTRATIONS BELOW RESPECTIVE TLV'S.

Protective Gloves:SYNTHETIC RUBBER

Eye Protection:CHEMICAL GOGGLES, SAFETY GLASSES W/SIDES

Other Protective Equipment:RUBBER BOOTS, RUBBER

APRON OR RAINWEAR, TO

PREVENT SKIN CONTACT. AN EMERGENCY EYEWASH AND SHOWER SHOULD BE
AVAILABLE.

Work Hygienic Practices:WASH HANDS THOROUGHLY WITH SOAP AND WATER
BEFORE EATING, DRINKING, SMOKING OR USING TOILET FACILITIES.

Supplemental Safety and Health

DO NOT USE LEATHER OR WOOL GLOVES.

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

HCC:B1

Boiling Pt:B.P. Text:NOT GIVEN

Melt/Freeze Pt:M.P/F.P Text:NOT GIVEN

Vapor Pres:NOT GIVEN

Vapor Density:NOT GIVEN

Spec Gravity:1.25-1.30(ELCT)
Evaporation Rate & Reference:NOT GIVEN
Solubility in Water:ELECTROLYTE COMPLETE
Appearance and Odor:NICKEL CADMIUM BATTERY

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

Stability Indicator/Materials to Avoid:YES
SULFURIC ACID, ALUMINUM, ZINC, TIN AND OTHER ACTIVE METALS, ACID,
CHLORINATE AND AROMATIC HYDROCARBONS, NITROCARBONS
Stability Condition to Avoid:HIGH TEMPERATURES, SPARKS, OPEN FLAMES
Hazardous Decomposition Products:NICKEL OX
IDE, CADMIUM, CADMIUM OXIDE,
POTASSIUM HYDROXIDE, HYDROGEN GAS.

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

Waste Disposal Methods:PREVENT WASTE FROM CONTAMINATING SURROUNDING
ENVIRONMENT. DISCARD ANY PRODUCT, RESIDUE, DISPOSAL CONTAINER OR
LINER IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS.
BATTERY MAY BE RETURNED TO SAFT FOR RECYCLING. IT IS TCLP TOXIC.

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