

SAFT AMERICA INC, POWER SOURCES DIV -- INDUSTRIAL NICKEL CADMIUM STORAGE BATTERY
-- 6140-01-032-3938

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

Product ID:INDUSTRIAL NICKEL CADMIUM STORAGE BATTERY

MSDS Date:06/16/1994

FSC:6140

NIIN:01-032-3938

Kit Part:Y

MSDS Number: CCSVM

== 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 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)

CAS:7440-43-9

RTECS #:EU9800000

Other REC Limits:NONE RECOMMENDED

OSHA PEL:0.2 MG/M3 DUST; Z-2

ACGIH TLV:0.01 MG/M3 DUS

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

Ingred Name:CADMIUM OXIDE (SARA 302/313) (CERCLA)
CAS:1306-19-0
RTECS #:EV1925000
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)
CAS:7440-02-0
RTECS #:QR5950000
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
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
Other REC Limits:NONE RECOMMENDED
OSHA PEL:1 MG/M3 AS NI
ACGIH TLV:1 MG/M3 AS NI

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

Routes of Entry: Inhalation:YES Skin:YES Ingestion:NO
Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:YES
Health Hazards Acute and Chronic:(ELECTROLYTE): EYE-VERY RAPID, SEVERE
DAMAGE. EXTREMELY CORROSIV

E TO EYE. SKIN-SERIOUS BURNS TO SKIN

TISSUE. INGESTION-TISSUE DAMAGE TO THROAT AREA AND
GASTRO/RESPIRATORY TRACT. INHALATION-VARYING DEGREES OF IRRITATION
OF THE NASAL MUCOUS MEMBRANES & RESPIRATORY TRACT TISSUES.

Explanation of Carcinogenicity:NIOSH RECOMMENDED THAT NICKEL & CADMIUM
BE TREATED AS OCCUPATIONAL CARCINOGENS.

Effects of Overexposure:(ELECTROLYTE): EYE-PERMANENT BLINDNESS.

(CADMIUM OXIDE): INHALATION-DRY THROAT, COUGH, HEADACHE, VOMITING,
CHEST PAIN, CHILLS

. (NICKEL COMPOUNDS): INGESTION-NAUSEA AND
INTESTINAL DISORDERS.

Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

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

First Aid:ELECTROLYTE: EYE-FLUSH WITH PLENTY OF WATER FOR AT LEAST 15
MIN. GET IMMEDIATE MEDICAL ATTENTION. SKIN-REMOVE SOILED CLOTHING &
FLUSH AFFECTED AREA WITH PLENTY OF WATER FOR AT LEAST 15 MIN.
INGESTION- DO NOT INDUCE VOMITING. DILUTE BY GIVING WATER/MILK. GET
IMMEDIATE

MEDICAL ATTENTION. INHALATION-REMOVE TO FRESH AIR. GIVE
OXYGEN OR ARTIFICIAL RESPIRATION IF NEEDED. GET IMMEDIATE MEDICAL
ATTENTION.

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

Extinguishing Media:CARBON DIOXIDE, SAND.

Fire Fighting Procedures:USE SELF-CONTAINED BREATHING APPARATUS TO
AVOID BREATHING TOXIC FUMES. WEAR PROTECTIVE CLOTHING & EQUIPMENT
TO PREVENT POTENTIAL BODY CONTACT WITH ELECTROLYTE.

Unusual Fire/Explosion Hazard:ELECTROLYTE SOLUTION IS

CORROSIVE TO

HUMAN TISSUE, IT WILL REACT VIOLENTLY WITH MANY ORGANIC CHEMICALS,
ESPECIALLY NITROCARBONS AND CHLOROCARBONS.

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

Spill Release Procedures:ELECTROLYTE:FLUSH WITH WATER & NEUTRALIZE WITH
DILUTE CITRIC ACID. LARGE-CONTAIN MATERIAL IN SUITABLE CONTAINER OR
HOLDING AREA. DO NOT ALLOW MATERIAL TO ENTER SEWER, STREAMS OR
STORM CONDUITS. RECOVER MATERIAL WITH VACUUM TRUCK & DISPOSE OF
PROPERLY

Neut

ralizing Agent:DILUTE CITRIC ACID.

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

Handling and Storage Precautions:CARE SHOULD BE TAKEN TO HANDLE CELLS PROPERLY TO AVOID SHOERTING OR MISUSE THAT WILL RESULT IN RAPID UNCONTROLLED ELECTRICAL, CHEMICAL OR HEAT ENERGY.

Other Precautions:DO NOT TRANSPORT ACTIVATED BATTERIES WITHOUT VENT CAP IN PLACE. WHEN REMOVING BATTERY FROM SERVICE VISUALLY INSPECT FOR LEAKAGE PRIOR TO HANDLING. DO NOT ALLOW AN EXPOSED FLAME OR SPARK TO COME NEAR THE CELLS.

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

Respiratory Protection:USE NIOSH APPROVED MIST RESPIRATOR DURING ACTIVATION AND ACTUAL USAGE TO MAINTAIN EXPOSURE LEVELS BELOW THE TWA.

Ventilation:WELL VENTILATED AREA WHEN PERFORMING LEVEL CHARGING PROCEDURES TO REMOVE NORMAL GASES GENERATED.

Protective Gloves:SYNTHETIC RUBBER.

Eye Protection:SPLASH GOGGLES OR FACE SHIELD.

Other Protective Equipment:URBBER BOOTS, RUBBER APRON OR RAINWEAR OR

EQUIVALENT IF EXPO TO ELECTROLYTE SOLN IS POSSIBLE. DO NOT USE LEATHER OR WOOL

Work Hygienic Practices:WASH HANDS AFTER HANDLING. LAUNDER CONTAMIN CLOTHING BEFORE REUSE. DISCARD CONTAMIN LEATHER GOODS.

Supplemental Safety and Health

HMIS RATIBG: 3 HEALTH, 1 FLAMMABILITY, 2 REACTIVITY.

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

HCC:B1

Vapor Pres:2 MMHG

Spec Gravity:1.17-1.25 ACID

Solubility in Water:ELECTROLYTE SOLUBLE.

Appearance and Odor:N

ONE SPECIFIED BY MANUFACTURER.

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

Stability Indicator/Materials to Avoid:YES

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

Stability Condition to Avoid:NONE SPECIFIED BY MANUFACTURER.

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

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

Waste Dispos

al Methods: STORAGE BATTERY IS A HAZARDOUS WASTE UNDER RCRA.
IT MAY BE RETURNED TO SAFT FOR RECYCLING. BATTERY IS TCLP TOXIC.
BATTERY & ELECTROLYTE SOLN ARE CORROSIVE. IF NOT RECYCLED MUST BE
DISPOSED OF IN ACCORDANCE W/ALL LOCAL, STATE AND FEDERAL
REGULATIONS.

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