

SAFT AMERICA INC ADVANCED BATTERY SYSTEMS DIVISION -- LITHIUM THIONYL CHLORIDE
BATTERY -- 6135-01-370-2599

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

Product ID:LITHIUM THIONYL CHLORIDE BATTERY

MSDS Date:04/28/1998

FSC:6135

NIIN:01-370-2599

MSDS Number: CKHZY

=== Responsible Party ===

Company Name:SAFT AMERICA INC ADVANCED BATTERY SYSTEMS DIVISION

Address:313 CRESCENT ST NE

City:VALDESE

State:NC

ZIP:2869

0-9643

Country:US

Info Phone Num:828-874-4111MD 410-771-3200

Emergency Phone Num:704-874-4111/MD 410-771-3200

Chemtrec Ind/Phone:(800)424-9300

CAGE:7X634

=== Contractor Identification ===

Company Name:BATTERY MARKETING ASSN. (AKA: SUNN BATTERY CO.)

Address:1316 W ADAMS

Box:City:JACKSONVILLE

State:FL

ZIP:32204

Country:US

Phone:800-226-4508/ 904-354-4508

CAGE:1LWY3

Company Name:HAWKER ETERNACELL, INC.

Address:495 BOULEVARD

Box:City:ELMWOOD PARK

State:NJ

ZIP:07407-2029

Country:US

Phone:201-796-4800

/FAX: 201-796-6243

Contract Num:SP0430-98-M-JA42

CAGE:5G978

Company Name:KAMPI COMPONENTS CO., INC.

Address:210 RT 13

Box:721

City:BRISTOL

State:PA

ZIP:19007-3517

Country:US

Phone:215-736-2000

Contract Num:SP0430-99-M-AC15

CAGE:7Z016

Company Name:PLAINVIEW BATTERIES INC

Address:23 NEWTOWN RD

Box:City:PLAINVIEW

State:NY

ZIP:11803

Country:US

Phone:516-249-2873

ty:VALDESE
State:NC
ZIP:28690-9643
Country:US
Phone:828-874-4111/912-245-2806
CAGE:7X634
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

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Composition/Information on Ingredients
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Ingred Name:LITHIUM METAL (0.33 GRAM PER CELL/BATTERY)
CAS:7439-93-2
RTECS #:OJ5540000
Other REC Limits:NONE RECOMMENDED

Ingred Name:THIONYL CHLORIDE
CAS:7719-09-7
RTECS #
:XM5150000
Other REC Limits:NONE RECOMMENDED
OSHA PEL:C 1 PPM
ACGIH TLV:C 1 PPM; 9495

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Hazards Identification
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Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:ACUTE: IF CELL SEAL IS BROKEN, THE
SUBSTANCE & VAPORS HAVE A CORROSIVE EFFECT ON THE SKIN & MUCOUS
MEMBRANES. MAY CAUSE BURNS AND IRRITATION TO RESPIRATORY TRACT.
CHRONIC: NONE SPECIFIED B
Y MANUFACTUR ER.
Explanation of Carcinogenicity:NO INGREDIENT OF A CONCENTRATION OF 0.1%
OR GREATER IS LISTED AS A CARCINOGEN OR SUEPECTED CARCINOGEN.
Effects of Overexposure:BURNS AND IRRITATION TO RESPIRATORY SYSTEM.
Medical Cond Aggravated by Exposure:ASTHMA & OTHER RESPIRATORY
DISEASES.

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First Aid Measures
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First Aid:IN CASE OF CONTACT WITH EYES, FLUSH IMMEDIATELY WITH WATER
FOR 15 MINUTES; WITH SKIN, WASH WITH PLENTY OF WATER AND

TAKE OFF

CONTAMINATED CLOTHES; INHALATION, REMOVE FROM EXPOSURE - SEEK MEDICAL ADVIS E.

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

Extinguishing Media:USE A CLASS D FIRE EXTINGUISHING AGENT.

Fire Fighting Procedures:WEAR SELF-CONTAINED BREATHING APPARATUS.

Unusual Fire/Explosion Hazard:GENERATION OF CHLORINE, SULFURE DIOXIDE, DISULFUR DICHLORIDE DURING THERMAL DECOMPOSITION.

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

Spill Relea

se Procedures:COVER WITH SODIUM CARBONATE, OR 1:1 MIXTURE OF SODA ASH & SLAKED LIME. SCOOP INTO CONTAINER FOR LATER DISPOSAL. PRECIPITATE ANY ESCAPING GASES/VAPORS WITH WATER SPRAY. ENSURE ADEQUATE VENTILATION OR E XHAUST VENTILATION IN AREA.

Neutralizing Agent:SODIUM CARBONATE OR 1:1 MIXTURE OF SODA ASH & SLAKED LIME.

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

Handling and Storage Precautions:KEEP CONTAINER DRY AND TIGHTLY CLOSED,STORE IN A COOL (M AX. TEMP. 50C) AND WELL-VENTILATED PLACE.STORE AWAY FROM FOOD AND DRINK.

Other Precautions:IF CONTAMINATION WITH MOISTURE OCCURS, PRODUCT WILL RELEASE GAS CAUSING PRESSURE BUILD-UP WHICH COULD RESULT IN DRUM RUPTURE.

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

Eye Protection:SAFETY GLASSES WITH SIDE SHIELDS.

Work Hygienic Practices:KEEP ONLY IN THE ORIGINAL CONTAINER. HANDLE AND OPEN CONTAINER WITH CARE. ENSURE EFFECTIVE VENTILATION.

Supplemental Safety and Health

PART # LS14250C. AMOUNT OF LITHIUM PER CELL/BATTERY IS 0.33 GRAMS.

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

HCC:Z6

Boiling Pt:=75.C, 167.F

Melt/Freeze Pt:=-106.C, -158.8F

Vapor Pres: .04 BAR @ +20 DEG C

Spec Gravity:1.64 (H2O=1)

pH:NONE PROVIDED

Solubility in Water:DECOMPOSED BY WATER

Appearance and Odor:BATTERY, LITHIUM, (CONTAINS COLORLESS LIQUID WITH PUNGENT ODOR).

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

Stability Indi

ator/Materials to Avoid: YES

WATER, ALKALIS.

Stability Condition to Avoid: HEATING, MECHANICAL ABUSE, ELECTRICAL ABUSE (IE. RECHARGING, VOLTAGE REVERSAL, SHORT CIRCUITING) MAY RESULT IN VENTING. CELLS ARE NOT REACTING PROVIDED THE CELL SEAL REMAINS INTACT.

Hazardous Decomposition Products: HYDROGEN, SULFUR DIOXIDE, SULFUR CHLORIDE, DISULFUR DICHLORIDE, CHLORINE.

Conditions to Avoid Polymerization: WILL NOT OCCUR.

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

Waste Disposal Methods: PRODUCT DECOMPOSED BY WATER MUST BE NEUTRALIZED. MAY BE ADDED TO WASTE WATER IN SUFFICIENTLY DILUTED FORM. DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

===== MSDS Transport Information =====

Transport Information: PROPER SHIPPING NAME: LITHIUM BATTERIES. UN-DOT HAZARD CLASS: CLASS 9. UN ID NO.: UN3090. HAZARD LABEL: MISCELLANEOUS HAZARD. CONTAINER MARKING: MISCELLANEOUS HAZARD. PLACARD: MISCELLANEOUS HAZARD. NOTE: REGULATIONS FOR THE SHIPMENT OF LITHIUM BATTERIES, WITH CELLS CONTAINING NO MORE THAN 12 GRAMS ARE COVERED IN PACKING INSTRUCTION 903. ***BUT, EACH BATTERY CONTAINS LESS THAN 0.5 GRAMS OF LITHIUM. THEREFORE, THESE BATTERIES ARE NOT REGULATED FOR TRANSPORTATION, AS PER 49 CFR 173.185 (B)(10), IATA PROV A45, IMDG PAGE 9033A AND AFJM A13.8.5.

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