

SAFT AMERICA INC ADVANCED BATTERY SYSTEMS DIVISION -- LS 14250 LITHIUM THIONYL
CHLORIDE BATTERY -- 6135-01-435-4921

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

Product ID:LS 14250 LITHIUM THIONYL CHLORIDE BATTERY

MSDS Date:03/01/1994

FSC:6135

NIIN:01-435-4921

MSDS Number: CGLHZ

=== Responsible Party ===

Company Name:SAFT AMERICA INC ADVANCED BATTERY SYSTEMS DIVISION

Address:LOVELADY LN

Box:280

City:VALDES

E

State:NC

ZIP:28690

Country:US

Info Phone Num:704-874-4111/CORP 912-247-2331

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

CAGE:7X634

=== Contractor Identification ===

Company Name:PLAINVIEW BATTERIES INC

Address:23 NEWTOWN RD

Box:City:PLAINVIEW

State:NY

ZIP:11803

Country:US

Phone:516-249-2873

Contract Num:SP0430-01-1M-G643

CAGE:0LEJ1

Company Name:SAFT AMERICA INC ADVANCED BATTERY SYSTEMS DIVISION

Address:313 CRESCENT ST NE

Box:City:VALDESE

State:NC

ZIP:28690-9643

Country:US

Phone:828-874-41

11/912-245-2806
CAGE:7X634
Company Name:TNR TECHNICAL INC
Address:301 CENTRAL PARK DR
Box:City:SANFORD
State:FL
ZIP:32771
Country:US
Phone:407-321-3011
Contract Num:SP0430-00-M-G364
CAGE:1HJ92

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Composition/Information on Ingredients
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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; 9596

Ingred Name:LITHIUM METAL
CAS:7439-93-2
RTECS #:OJ5540000
Other REC Limits:NONE RECOMMENDED

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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 BY 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:INHALED-COUGING, SHORTNESS OF BREATH, BURNING
SENSATION IN CHEST. SKIN-BURNING SENSATION, REDNESS, STINGING/
DISCOMFORT. EYES-PAIN, REDNESS, TEARING, DISCOMFORT.
Medical Cond Aggravated by Exposure:ASTHMA & OTHER RESPIRATORY
DISEASES.

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First Aid Measures
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First Aid:EYES-FLUSH WITH LOTS OF WATER FOR 15 MINUTES. SKIN-REMOVE
CONTAMINATED CLOTHES. WA

SH WITH LOTS OF WATER. INHALED-REMOVE FROM EXPOSURE. SEEK MEDICAL ADVICE.

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Fire Fighting Measures
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Extinguishing Media:WATER OR CARBON DIOXIDE ON BURNING LITHIUM THIONYL CHLORIDE CELLS OR BATTERIES. USE CLASS D AGENT ON RAW LITHIUM FIRE.

Fire Fighting Procedures:WEAR SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE GEAR.

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

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Accidental Release Measures
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Spill Release 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 EX HAUST VENTILATION IN AREA.

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

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Handling and Storage
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Handling and Storage

Precautions:KEEP CONTAINER DRY AND TIGHTLY CLOSED IN A COOL (MAX. TEMP. 50C) AND WELL-VENTILATED PLACE. KEEP ONLY IN ORIGINAL CONTAINER.

Other Precautions:HANDLE & OPEN CONTAINER WITH CARE. ENSURE EFFECTIVE VENTILATION. IF CONTAMINATION WITH MOISTURE OCCURS, PRODUCT WILL RELEASE GAS CAUSING PRESSURE BUILD-UP WHICH COULD RESULT IN DRUM (SPILL WASTE) RUPTURE.

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Exposure Controls/Personal Protection
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Respiratory Protection:NONE SPECIFIED BY MANUFACTURER.

DLA-HMIS:IF

ENGINEERING CONTROLS FAIL OR NON-ROUTINE USE OR AN EMERGENCY OCCURS;WEAR AN MSHA/NIOSH APPROVED RESPIRATOR OR AN AIR-SUPPLIED RESPIRATOR OR SCBA,AS REQUIRED. USE IN ACCORDANCE WITH 29 CFR 1910.134.

Ventilation:NONE SPECIFIED BY MANUFACTURER.USE ADEQUATE MECHANICAL VENTILATION OR LOCAL EXHAUST TO MAINTAIN EXPOSURE BELOW TLV(S).

Protective Gloves:DLA-HMIS (SPILL): NEOPRENE, PVC.

Eye Protection:SAFETY GLASSES W/SIDE SHIELDS.

Other Protective Equipment:

equipment:NONE SPECIFIED BY MANUFACTURER. DLA-HMIS:

EYE WASH STATION & SAFETY SHOWER.

Work Hygienic Practices:WASH HANDS AFTER HANDLING AND BEFORE EATING,
DRINKING, OR SMOKING. LAUNDRY CONTAMINATED CLOTHES BEFORE REUSE.

Supplemental Safety and Health

NONE

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

HCC:V1

Melt/Freeze Pt:M.P/F.P Text:374F,190C

Spec Gravity:>1

Solubility in Water:INSOLUBLE

Appearance and Odor:BATTERY, LITHIUM, 3.6 VOLTS, 0.579 X 1.990 INCHES,

SHELF LIFE=1.0 YEARS.

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

Stability Indicator/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.

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.

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