

SAFT AMERICA INC ADVANCED BATTERY SYSTEMS DIVISION -- LITHIUM SULFUR DIOXIDE  
BATTERY,BA-5600/U -- 6135-01-168-2944

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Product Identification  
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Product ID:LITHIUM SULFUR DIOXIDE BATTERY,BA-5600/U

MSDS Date:01/31/1992

FSC:6135

NIIN:01-168-2944

MSDS Number: BVRFZ

=== Responsible Party ===

Company Name:SAFT AMERICA INC ADVANCED BATTERY SYSTEMS DIVISION

Address:313 CRESCENT STREET

Box:280

City:

VALDESE

State:NC

ZIP:28690

Country:US

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

Emergency Phone Num:704-874-4111/800-424-9300(CHEMTREC)

Preparer's Name:JAYNE MERCER

CAGE:7X634

=== Contractor Identification ===

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:828-874-4111/912-245-2806

CAGE:7X634

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Composition/Information on Ingredients  
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Ingred Name:LITHIUM

CAS:7439-

93-2

RTECS #:OJ5540000

Fraction by Wt: 2.0%

Other REC Limits:NONE RECOMMENDED

Ingred Name:SULFUR DIOXIDE (SARA III)

CAS:7446-09-5

RTECS #:WS4550000

Fraction by Wt: 22.0%

Other REC Limits:NONE RECOMMENDED

OSHA PEL:2 PPM/5 PPM STEL

ACGIH TLV:2 PPM/5.2 PPM STEL

Ingred Name:ACETONITRILE (SARA III)

CAS:75-05-8

RTECS #:AL7700000

Fraction by Wt: 6.0%

Other REC Limits:NONE RECOMMENDED

OSHA PEL:40 PPM/60 PPM STEL

ACGIH TLV:40 PPM/67 PPM STEL

EPA Rpt Qty:5000 LBS

YLENE BLACK (CARBON BLACK)

CAS:1333-86-4

RTECS #:FF5800000

Fraction by Wt: 4.0%

Other REC Limits:NONE RECOMMENDED

OSHA PEL:3.5 MG/M3

ACGIH TLV:3.5 MG/M3

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

LD50 LC50 Mixture:NOT KNOWN

Routes of Entry: Inhalation:YES Skin:NO Ingestion:NO

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

Health Hazards Acute and Chronic:THE SEALED BATTERY DOES NOT PRESENT A HEALTH HAZARD. IF THE BATTERY IS DAMAGED OR THE VENT IS ACTIVATED,

THE SULFUR DIOXIDE CAN CAUSE SKIN BURNS, EYE, NOSE & THROAT IRRITATION, AND EVEN CHOKING .

Explanation of Carcinogenicity:NONE

Effects of Overexposure:IRRITATION OF NOSE, THROAT, EYES AND/OR SKIN; SUFFOCATING ODOR. DEPENDING ON THE CONCENTRATION OF SULFUR DIOXIDE, IT CAN ACT AS AN ASPHYXIANT AND MAY POSSIBLY CAUSE UNCONSCIOUSNESS WITH NO KNOWN CHRONIC HEALTH EFFECTS.

Medical Cond Aggravated by Exposure:SULFUR DIOXIDE MAY AGGRAVATE ASTHMA AND OTHER RESPIRATORY DISEASES.

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

First Aid:EYES:FLUSH WITH LARGE AMOUNTS OF WATER FOR AT LEAST 15 MINUTES . INGESTION:DRINK TWO GLASSES OF WATER TO DILUTE.

INHALATION:REMOVE PERSON FROM CONTAMINATED AREA TO FRESH AIR.IF CELL VENTS, PERSONNEL SHOULD BE EVACUATED FROM CONTAMINATED AREAS.ARTIFICIAL RESPIRATION SHOULD BE GIVEN IF BREATHING STOPS.

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

Flash Point:NONFLAMMABLE

Low

Lower Limits:NOT KNOWN

Upper Limits:NOT KNOWN

Extinguishing Media:USE WATER/CARBON DIOXIDE ON BURNING CELLS OR BATTERIES.USE CLASS D FIRE EXTINGUISHING AGENT ONLY ON A RAW LITHIUM FIRE.

Fire Fighting Procedures:WEAR SELF-CONTAINED BREATHING APPARATUS.

Unusual Fire/Explosion Hazard:BATTERY MAY VENT WHEN SUBJECTED TO EXCESSIVE HEAT, EXPOSING CELL CONTENTS.

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

Spill Release Procedures:KEEP OUT OF AREA UNLESS USING IMPERVIOUS

GLOVES AND CLOTHING, AND FULL-FACE BREATHING APPARATUS. PROVIDE  
MAXIMUM VENTILATION TO CLEAR OUT HAZARDOUS GASES.

Neutralizing Agent:NOT KNOWN

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

Handling and Storage Precautions:STORE IN WELL VENTILATED, SPRINKLER-  
PROTECTED, NONCOMBUSTIBLE STRUCTURE W/CLEARANCE BETWEEN THE WALLS &  
BATTERY STACKS.AVOID TEMP >160F.(SEE SUPP DAT

Other Precautions:DO NOT REMOVE OR BYPASS ELECTRICAL OR THERMAL FUSES.  
DO NOT HEAT  
ABOVE 200F.

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

Respiratory Protection:CONTACT LOCAL SAFETY/INDUSTRIAL HYGIENE OFFICE  
TO DETERMINE IF RESPIRATORY PROTECTION IS REQUIRED .

Ventilation:CONTACT LOCAL SAFETY/INDUSTRIAL HYGIENE OFFICE TO DETERMINE  
IF LOCAL EXHAUST VENTILATION IS NEEDED .

Protective Gloves:NOT KNOWN

Eye Protection:NOT KNOWN

Other Protective Equipment:NOT KNOWN

Work Hygienic Practices:NOT KNOWN

Supplemental Safety and Health

MATLS TO AVOID:AND

THE CELL SEAL REMAINS INTACT. HANDLG/STOR

PRECAUTIONS:IF EXPOSED TO EXTREME TEMPERATURES OR ROUGH HANDLING  
THE BATTERY MAY RELEASE SULFUR DIOXIDE GAS IF VENT IS ACTIVATED OR  
BATTERY DAMAGED. IF LARGE QUANTITIES OF BATTERIES ARE  
STORED,INSTALL ALARM DEVICES IN THE STORAGE AREA.

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

HCC:Z6

Boiling Pt:B.P. Text:NOT KNOWN

Melt/Freeze Pt:M.P/F.P Text:>200F,>93C

Decomp Temp:Decomp Text:NOT KNOWN

Vapor Pres:NOT KNOWN

V

apor Density:NOT KNOWN  
Spec Gravity:>1 (WATER=1)  
Evaporation Rate & Reference:NOT KNOWN  
Solubility in Water:INSOLUBLE  
Appearance and Odor:7.4 HIGH X 1.6 WIDE X 1.6 LONG INCH BATTERY

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

Stability Indicator/Materials to Avoid:YES  
BATTERY CONTAINS HERMETICALLY SEALED CELLS & IS NONREACTIVE PROVIDED  
THE BATTERY INTEGRITY IS MAINTAINED (SEE SUPP DATA)  
Stability Condition to Avoid:HEATING, MECHANICAL OR ELECTRICAL ABUSE  
(SU  
CH AS RECHARGING, VOLTAGE REVERSAL & SHORT CIRCUITING) MAY CAUSE  
VENTING  
Conditions to Avoid Polymerization:WILL NOT OCCUR.

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

Waste Disposal Methods:DISPOSAL MUST BE IAW W/ FEDERAL,STATE,AND LOCAL  
REGULATIONS.COORDINATE WITH SUPPORTING INSTALLATION AND/OR MACOM  
ENVIRONMENTAL OFFICE PRIOR TO DISPOSAL .

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