

SAFT AMERICA INC ADVANCED BATTERY SYSTEMS DIVISION -- 110-6716, LITHIUM SULFUR  
DIOXIDE BATTERY -- 5845-01-442-0413

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

Product ID:110-6716, LITHIUM SULFUR DIOXIDE BATTERY

MSDS Date:03/20/1998

FSC:5845

NIIN:01-442-0413

Status Code:A

Kit Part:Y

MSDS Number: CKTGB

=== Responsible Party ===

Company Name:SAFT AMERICA INC ADVANCED BATTERY SYSTEMS DIVISION

Address:313 CRES

CENT ST NE

City:VALDESE

State:NC

ZIP:28690-9643

Country:US

Info Phone Num:828-874-4111/912-245-2806

Emergency Phone Num:800-424-9300

Chemtrec Ind/Phone:(800)424-9300

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

Company Name:SPARTON ELECTRONICS

Address:5612 JOHNSON LAKE ROAD

Box:788

City:DELEON SPRINGS

State:FL

ZI

P:32130  
Country:US  
Phone:904-985-4631  
Contract Num:N00164-00-C-0014  
CAGE:7A529

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Composition/Information on Ingredients  
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Ingred Name:LITHIUM METAL  
CAS:7439-93-2  
RTECS #:OJ5540000  
&lt; Wt:2.5

Ingred Name:SULFUR DIOXIDE  
CAS:7446-09-5  
RTECS #:WS4550000  
&lt; Wt:25.  
OSHA PEL:13 MG/M3;5 PPM  
ACGIH TLV:5.2 MG/M3;2 PPM  
ACGIH STEL:13 MG/M3;5 PPM

Ingred Name:ACETONITRILE  
CAS:75-05-8  
RTECS #:AL7700000  
&lt; Wt:6.  
OSHA PEL:70 MG/M3;40 PPM  
ACGIH TLV:67 MG/M3;40 PPM  
ACGIH STEL:101  
MG/M3;60 PPM  
EPA Rpt Qty:5000 LBS  
DOT Rpt Qty:5000 LBS

Ingred Name:ACETYLENE BLACK  
CAS:1333-86-4  
RTECS #:FF5800000  
&lt; Wt:5.  
OSHA PEL:3.5 MG/M3  
ACGIH TLV:3.5 MG/M3

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Hazards Identification  
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LD50 LC50 Mixture:NO DATA PROVIDED BY RESPONSIBLE PARTY.  
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES  
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:DEPENDING ON THE CONCENTRATION OF  
SULFUR DIOXIDE EXPOSURE,

IT ACTS AS AN ASPHYXIAN AND MAY POSSIBLY CAUSE UNCONSCIOUSNESS WITH NO KNOWN CHRONIC HEALTH EFFECTS.

Explanation of Carcinogenicity:NONE

Effects of Overexposure:SULFUR DIOXIDE-IRRITATION OF NOSE, THROAT, EYES, AND/OR SKIN-SUFFOCATING ODOR.

Medical Cond Aggravated by Exposure:SULFUR DIOXIDE- ASTHMA AND OTHER RESPIRATORY DISEASE

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

First Aid:IF CELL VENTS, PERSONNEL SHOULD BE EVACUATED FROM CONTAMINATED AREAS. ARTIFICIAL RESPIRATION SHOULD BE GIVEN IF BREATHING STOPS. FLUSH ANY MATERIAL FROM SKIN.

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

Extinguishing Media:USE WATER OR CO2 ON BURNING LITHIUM SULFUR DIOXIDE CELLS OR BATTERIES. USE A CLASS D FIRE EXTINGUISHING AGENT ONLY ON A RAW LITHIUM FIRE.

Fire Fighting Procedures:USE SELF-CONTAINED BREATHING APPARATUS.

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

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

Spill Release Procedures:REMOVE PERSONNEL FROM AREA UNTIL FUMES DISSIPATE. PROVIDE MAXIMUM VENTILATION TO CLEAR OUT HAZARDOUS GASES.

Neutralizing Agent:NO DATA PROVIDED BY RESPONSIBLE PARTY.

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

Handling and Storage Precautions:HERMETICALLY SEALED LISO2 CELLS DO NOT OUTGAS. HOWEVER, IF EXPOSED TO EXTREME TEMPERATURES OR ROUGH HANDLING, THEY MAY RELEASE SULFURDIOXIDE GAS IF THE VENT IS ACTIVATED OR THE BATTERY DAMAGED. (SEE SUPPLEMENTAL).

Other Precautions:DO NOT REMOVE OR BYPASS ELECTRICAL OR THERMAL FUSES. DO NOT HEAT ABOVE 70C.

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

Eye Protection:SAFETY GLASSES WITH SIDE SHIELDS.

Supplemental Safety and Health

HANDLING/STORAGE: A WELL-VENTILATED STORAGE AREAS SHOULD BE USED TO PREVENT INADVENTENT CONCENTRATION OF THE GAS IF EXTREMES ARE ANTICIPATED. IF LA

RGE QUANTITIES OF BATTERIES ARE STORED, IT MAY  
BE AD VISABLE TO INSTALL ALARM DEVICES IN THE STORAGE AREA TO  
DETECT SMOKE OR ACCUMULATION OF GASES.

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

HCC:G3

Melt/Freeze Pt:=190.C, 374.F

Spec Gravity:>1

Solubility in Water:NOT SOLUBE IN WATER

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

Stability Indicator/Materials to Avoid:YES

HEATING, MECHANICAL ABUSE AND ELECTRICAL ABUSE (SUCH AS RECHARGING,  
VOLTAGE REVERSAL AND SHORT CIRCUITING MAY RESULT IN VENTING.

Stability Condition to Avoid:BATTERY CONTAINS HERMETIICALLY SEALED  
CELLS AND IS NONREACTIVE PROVIDED THE BATTERY INTEGRITY IS  
MAINTAINED AND COIL SEAL REMAINS INTACT

===== Toxicological Information =====

Toxicological Information:NO DATA PROVIDED BY RESPONSIBLE PARTY.

===== Ecological Information =====

Ecological:NO DATA PROVIDED BY RESPONSIBLE PARTY.

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

Waste Disposal Methods:DISPOSE OF CELL OR BATTERY IN ACCORDANCE WITH  
LOCAL, STATE, AND FEDERAL ENVIRONMENTAL REGULATIONS.

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

Transport Information:US DOT PROPER SHIPPING NAME: LITHIUM BATTERIES.

UN HAZARD CLASS: CLASS 9. UN ID NO: UN3090. HAZARD LABEL:

MISCELLANEOUS HAZARD. CONTAINER MARKING: MISCELLANEOUS HAZARD.

PLACARD: MISCELLANEOUS.

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Regulatory Information  
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SARA Title III Information:NO DATA PROVIDED BY RESPONSIBLE PARTY.  
Federal Regulatory Information:NO DATA PROVIDED BY RESPONSIBLE PARTY.  
State Regulatory Information:NO DATA PROVIDED BY RESPONSIBLE PARTY.

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Other Information  
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