

BALLARD BATTERY SYSTEMS CORP -- LITHIUM SULFUR DIOXIDE BATTERY BA-5093/U --
6135-01-216-9771

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

Product ID:LITHIUM SULFUR DIOXIDE BATTERY BA-5093/U

MSDS Date:08/20/1991

FSC:6135

NIIN:01-216-9771

MSDS Number: BLWHG

=== Responsible Party ===

Company Name:BALLARD BATTERY SYSTEMS CORP

Address:1164 WEST 15TH STREET

City:NORTH VANCOUVER

Country:BC

Info Phone Num:604-986-

4104

Emergency Phone Num:604-986-4104

CAGE:0E1R2

=== Contractor Identification ===

Company Name:EAGLE-PICHER ENERGY PRODUCTS CORP

Address:13136 82A AVENUE

Box:City:SURREY, V3W 9Y6

State:BC

Country:US

Phone:604-543-4350

CAGE:0E1R2

===== Composition/Information on Ingredients =====

Ingred Name:LITHIUM METAL

CAS:7439-93-2

RTECS #:OJ5540000

Fraction by Wt: 1.8%

Other REC Limits:NONE SPECIFIED

Ingred Name:SULFUR DIOXIDE (SARA III)

CAS:7446-09-5

RTECS #:WS4550000

Fraction by Wt:

17%
Other REC Limits:NONE SPECIFIED
OSHA PEL:5 PPM/5 STEL
ACGIH TLV:2 PPM/5 STEL; 9293

Ingrid Name:ACETONITRILE (SARA III)
CAS:75-05-8
RTECS #:AL7700000
Fraction by Wt: 6%
Other REC Limits:NONE SPECIFIED
OSHA PEL:40PPM/60 STEL
ACGIH TLV:40PPM/60STEL; 9192
EPA Rpt Qty:5000 LBS
DOT Rpt Qty:5000 LBS

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

Routes of Entry: Inhalation:YES Skin:NO Ingestion:NO
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute
and Chronic:ACUTE: 10-20 PPM IRRITATING; 100 PPM
DANGEROUS; ABOVE 400 PPM LIFE THREATENING. CHRONIC: RHINITIS.
Explanation of Carcinogenicity:NONE OF THE HAZARDOUS INGREDIENTS ARE
LISTED AS CARCINOGENIC TO HUMANS BY IARC, NTP OR OSHA.
Effects of Overexposure:EYE AND RESPIRATORY IRRITATION, DRY THROAT AND
COUGHING.
Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

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

First Aid:FOR SULFUR DIOXIDE EXP
OSURE; REMOVE TO VENTILATED AREA.
CONSULT PHYSICIAN.

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

Extinguishing Media:FOR BURNING BATTERIES USE CLASS D EXTINGUISHERS;
LITH-X, POWDERED GRAPHITE; MET-L-X.
Fire Fighting Procedures:USE WATER SPRAY OR CARBON DIOXIDE TO LOWER
TEMPERATURE & EXTINGUISH FIRES IN PACKING MATERIAL. USE SELF
CONTAINED BREATHING APPARATUS & FULL PROTECTIVE CLOTHING
Unusual Fire/Explosion Hazard:SULFUR DIOXIDE GAS, CARBON MONOXIDE,

LITHIUM OXIDE FUMES ARE HAZARDOUS COMBUSTION PRODUCTS.

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

Spill Release Procedures:NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions:VENTILATED AREAS EQUIPPED WITH
SPRINKLER SYSTEM, AWAY FROM FLAMMABLES.

Other Precautions:NONE

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

Respiratory Protection:FULL FACE CHEMICAL CAR
TRIDGE, BELOW 20 PPM. SELF
CONTAINED BREATHING APPARATUS.

Ventilation:NONE SPECIFIED BY MANUFACTURER.

Protective Gloves:NONE SPECIFIED BY MANUFACTURER.

Eye Protection:NONE SPECIFIED BY MANUFACTURER.

Other Protective Equipment:NEEDED FOR RUPTURED BATTERIES ONLY - FOR
SULFUR DIOXIDE FIRE.

Work Hygienic Practices:WASH HANDS THOROUGHLY AFTER USE AND BEFORE
EATING, DRINKING OR SMOKING.

Supplemental Safety and Health

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

HC

C:Z6

Appearance and Odor:SOLID

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

Stability Indicator/Materials to Avoid:YES

LITHIUM REACTS WITH WATER TO FORM HYDROGEN.

Stability Condition to Avoid:MOIST SULFUR DIOXIDE IS CORROSIVE.

Hazardous Decomposition Products:RUPTURED BATTERIES WILL RELEASE SULFUR
DIOXIDE.

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

Waste Disposal Methods:ACCORDING TO REGULATIONS.

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