

BALLARD BATTERY SYSTEMS CORP -- BA-5599/U, LITHIUM SULFUR DIOXIDE BATTERY --
6135-01-069-8575

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

Product ID:BA-5599/U, LITHIUM SULFUR DIOXIDE BATTERY

MSDS Date:08/20/1991

FSC:6135

NIIN:01-069-8575

Status Code:A

MSDS Number: CJTBS

=== Responsible Party ===

Company Name:BALLARD BATTERY SYSTEMS CORP

Address:1164 WEST 15TH STREET

City:NORTH VANCOUVER

Country:BC

Info Ph

one 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

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

Ingred Name:LITHIUM METAL

CAS:7439-93-2

RTECS #:OJ5540000

Fraction by Wt: 1.7%

Other REC Limits:NONE SPECIFIED

Ingred Name:SULFUR DIOXIDE (SARA III)

CAS:7446-09-5

RTECS #:WS4550000

Fraction by Wt: 16%
Other REC Limits:NONE SPECIFIED
OSHA PEL:5 PPM/5 STEL
ACGIH TLV:2 PPM/5 STEL; 9293

Ingred 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

===== 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.

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

First Aid:FOR SU
LFUR DIOXIDE EXPOSURE; REMOVE TO VENTILATED AREA.
CONSULT PHYSICIAN.

===== 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:NONE SPECIFIED BY MANUF

ACTURER.

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

Spill Release Procedures:NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions:STORE IN A DRY, WELL VENTILATED AREAS,
AWAY FROM FLAMMABLES.

Other Precautions:DO NOT INCINERATE, CHARGE OR BREAK OPEN SEALED
BATTERIES.

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

Respiratory Protection:FULL FACE CHEMICAL CART
RIDGE, BELOW 20 PPM. SELF

CONTAINED BREATHING APPARATUS IN ENCLOSED AREAS AND WITH
CONCENTRATIONS GREATER THAN 20 PPM..

Ventilation:NONE SPECIFIED BY MANUFACTURER. (GENERAL OR LOCAL)

Protective Gloves:USE CHEMICAL RESISTANT GLOVES WHEN HANDLING RUPTURED
BATTRIES.

Eye Protection:NONE SPECIFIED BY MANUFACTURER. WEAR GOGGLES WHEN
HANDLING RUPTURED BATTRIES.

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

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

Supplemental Safety and Health

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

HCC:Z6

Appearance and Odor:SOLID SEALED BATTERIES.

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

Stability Indicator/Materials to Avoid:YES

ACIDS, ALKALIS, WATER, OXIDIZING AGENTS. LITHIUM REACTS WITH WATER TO
FORM HYDROGEN. MOIST SULFUR DIOXIDE IS CORROSIVE.

Stability Condition to Avoid:LITHIUM REACT

S WITH AIR, WATER AND MOST
MATERIALS.

Hazardous Decomposition Products:RUPTURED BATTERIES WILL RELEASE SULFUR
DIOXIDE.

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

Waste Disposal Methods:DISPOSE OF IN ACCORDANCE W/LOCAL, STATE &
FEDERAL REGULATIONS.

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

Transport Information:EACH BATTERY CONTAINS LESS THAN 0.5 GRAMS OF
LITHIUM. THEREFORE, THESE BATTERIES ARE NOT REGULATED FOR
TRANSPORT
ATION, AS PER 49 CFR 173.185 (B)(10), IATA PROV A45, IMDG
PAGE 9033A AND AFJM A13.8.5.

===== Other Information =====

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