

POWER CONVERSION INC -- LITHIUM MANGANESE DIOXIDE BATTERY,BA-5372/U --
6135-01-214-6441

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

Product ID:LITHIUM MANGANESE DIOXIDE BATTERY,BA-5372/U

MSDS Date:02/05/1993

FSC:6135

NIIN:01-214-6441

MSDS Number: BRSVY

=== Responsible Party ===

Company Name:POWER CONVERSION INC

Address:280 MIDLAND AVE

City:SADDLE BROOK

State:NJ

ZIP:07662

Country:US

Info Phone Num:201-796-4

800

Emergency Phone Num:201-796-4800

Preparer's Name:PHILIP DIGENNARO

CAGE:0CEP0

=== Contractor Identification ===

Company Name:POWER CONVERSION INC

Address:280 MIDLAND AVE

Box:City:SADDLE BROOK

State:NJ

ZIP:07662

Country:US

Phone:201-796-4800

Contract Num:DAAB07-99-C-A257

CAGE:0CEP0

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

Ingred Name:LITHIUM METAL (LI)

CAS:7439-93-2

RTECS #:OJ5540000

Other REC Limits:NONE RECOMMENDED

Ingred Name:MANGANESE DIOXIDE (MNO2)

CAS:1313

-13-9
RTECS #:OP0350000
Other REC Limits:NONE RECOMMENDED
OSHA PEL:5 MG (MN)/M3 CEILING
ACGIH TLV:5 MG (MN)/M3 9293

Ingred Name:PROPYLENE CARBONATE (PC)
CAS:108-32-7
Other REC Limits:NONE RECOMMENDED

Ingred Name:DIMETHYOXY ETHER (DME)
Other REC Limits:NONE RECOMMENDED

Ingred Name:CARBON BLACK (C)
CAS:1333-86-4
RTECS #:FF5800000
Other REC Limits:NONE RECOMMENDED
OSHA PEL:3.5 MG/M3
ACGIH TLV:3.5 MG/M3; 9293

Ingred Name:GRAPHITE, NATURAL (C)
CAS:7782-42-5
RTECS #:MD9659600
Other REC Limit
s:NONE RECOMMENDED
OSHA PEL:15 MPPCF RDUST
ACGIH TLV:2 MG/M3 RDUST; 9293

Ingred Name:TEFLON (PTFE)
CAS:116-14-3
RTECS #:KX4025000
Other REC Limits:NONE RECOMMENDED

Ingred Name:LITHIUM TRIFLUOROMETHANE SULFONATE (LI CF 3508)
Other REC Limits:NONE RECOMMENDED

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

LD50 LC50 Mixture:ORAL RAT LD50, NONE STATED.
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazar

ds Acute and Chronic:PRODUCT IS NOT A HEALTH HAZARD UNDER NORMAL CONDITIONS OF USE. RISK OF EXPOSURE OCCURS ONLY IF BATTERY IS MECHANICALLY OR ELECTRICALLY ABUSED. PC IS MILD SKIN AND EYE IRRITANT. DME IS SLIGHTLY TOXIC. AVOID ELECTROLYTE OR LITHIUM SKIN AND EYE CONTACT. INHALATION OR INGESTION OF LITHIUM TRIFLUOROMETHENE MAY BE HARMFUL.

Effects of Overexposure:ELECTROLYTE EXPOSURE TO SKIN AND EYES MAY CAUSE IRRITATION AND IS SLIGHTLY TOXIC. INHALATION OR INGESTION OF

LITHIUM TRIFLUOROMETHENE SULFONATE MAY BE HARMFUL.

Medical Cond Aggravated by Exposure:NONE SPECIFIED BY MANUFACTURER.

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

First Aid:NONE NORMALLY REQUIRED. HOWEVER, IF CONTACTED BY CORROSIVE MATERIALS FROM LEAKING BATTERY: EYES: FLUSH WITH LARGE AMOUNTS OF WATER. GET MEDICAL ATTENTION. SKIN: WASH AREA WITH SOAP AND WATER. GET MEDICAL ATTENTION. INHALATION: MOVE TO FRESH AIR. GET MEDICAL ATTENTION. INGESTION: GET MEDICAL ATTENTION.

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

Extinguishing Media:LITH-X/METAL-X, SAND, DRY CHEMICAL.

Fire Fighting Procedures:RAPIDLY COOL BATTERIES WITH ABOVE EXTINGUISHING MEDIA. DO NOT USE WATER. FOR LARGE NUMBER OF CELLS INVOLVED IN FIRE, FIREMEN SHOULD USE SCBA.

Unusual Fire/Explosion Hazard:BATTERIES MAY EXPLODE, PYROLYZE, OR VENT IF DISASSEMBLED, CRUSHED, RECHARGED OR EXPOSED TO FIRE OR HIGH TEMPERATURE.

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Accidental Release Measures =====

Spill Release Procedures:IF CELL OR BATTERY VENTS, LEAKS OR IS PUNCTURED, VENTILATE CONTAMINATED AREA. USE FULL PROTECTIVE EQUIPMENT. REMOVE SPILLED LIQUID WITH ABSORBENT. AVOID SKIN AND EYE CONTACT OR INHALATION OF VAPORS.

Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions:DO NOT RECHARGE, DISASSEMBLE, HEAT ABOVE 212F, INCINERATE

OR EXPOSE CONTENTS TO WATER. DO NOT ALLOW
CELLS OR BATTERIES TO SHORT CIRCUIT.
Other Precautions:AVOID MECHANICAL OR ELECTRICAL ABUSE.

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

Respiratory Protection:NONE NORMALLY REQUIRED. USE SCBA FOR FIRES. IN
CASE OF SPILL USE A FULL FACE RESPIRATOR WITH PARTICULATE/ORGANIC
CARTRIDGE.
Ventilation:GOOD WORK AREA VENTILATION IS NORMALLY ADEQUATE. IN CASE OF
CELL VENTING PROVIDE AS MUCH VENTILATION AS POSSIBLE.
Protective Gloves:BUTYL GLOVES WHEN HANDLING LEAKERS.
Eye Protection:SAFETY GLASSES WHEN HANDLING LEAKERS.
Other Protective Equipment:NONE NORMALLY REQUIRED.
Work Hygienic Practices:WASH AFTER HANDLING LEAKERS AND BEFORE EATING,
DRINKING, OR SMOKING.
Supplemental Safety and Health

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

HCC:V1
Boiling Pt:B.P. Text:DME 85C
Melt/Freeze Pt:M.P/F.P Text:DME -69C
Vapor Pres:DME 48
Vapor Density:DME 3.1
Spec Gravity:DME 0.868
Evaporation Rate & Reference:DME 4.99(BUTYL ACETATE=1)
Solubility in Water:DME:- COMPLETE
Appearance and Odor:SEALED BATTERY.INGRED:DME-COLORLESS LIQUID,SWEET
ODOR.LI-SOFT SILVERY METAL
Percent Volatiles by Volume:25

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

Stability Indicator/Materials to Avoid:YES
DO NOT EXPOSE VENTED CELLS TO WATER.
Stability Condition to Avoid:DO NOT HEAT, DISASSEMBLE OR RECHARGE. DO
NOT SHORT CIRCUIT OR INSTALL WITH INCORRECT POLARITY.
Hazardous

Decomposition Products:NONE SPECIFIED BY MANUFACTURER.
Conditions to Avoid Polymerization:HAZARDOUS POLYMERIZATION WILL NOT
OCCUR.

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

Waste Disposal Methods:CONSULT YOUR LOCAL ENVIRONMENTAL OFFICER.
DISPOSE OF WASTE IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL
REGULATIONS.

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