

POWER CONVERSION INC -- LITHIUM MANGANESE DIOXIDE CELLS & BATTERYYS --
6135-01-340-7883

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

Product ID:LITHIUM MANGANESE DIOXIDE CELLS & BATTERYYS

MSDS Date:11/29/1995

FSC:6135

NIIN:01-340-7883

MSDS Number: CCCJB

==== Responsible Party ====

Company Name:POWER CONVERSION INC

Address:495 BOULEVARD

City:ELMWOOD PARK

State:NJ

ZIP:07407-2029

Country:US

Info Phone Num:201-796

-4800

Emergency Phone Num:201-796-4800

Preparer's Name:R. ZEZULA

CAGE:5G978

==== Contractor Identification ====

Company Name:HAWKER ETERNACELL, INC.

Address:495 BOULEVARD

Box:City:ELMWOOD PARK

State:NJ

ZIP:07407-2029

Country:US

Phone:201-796-4800 /FAX: 201-796-6243

CAGE:5G978

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

Ingred Name:MANGANESE DIOXIDE (NOTE THAT MFR LISTED CAS NO. AS
1313-13-4, AN INVALID NUMBER.)

CAS:1313-13-9

RTECS #:OP0350000

Fraction by Wt: 36-42%

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ther REC Limits:NONE RECOMMENDED
OSHA PEL:5 MG MN/M3 CEILING
ACGIH TLV:5 MG MN/M3

Ingred Name:LITHIUM (METAL)
CAS:7439-93-2
RTECS #:OJ5540000
Fraction by Wt: 2-4%
Other REC Limits:NONE RECOMMENDED

Ingred Name:PROPYLENE CARBONATE
CAS:108-32-7
RTECS #:FF9650000
Fraction by Wt: 4-6%
Other REC Limits:NONE RECOMMENDED

Ingred Name:DIMETHOXYETHANE
CAS:110-71-4
RTECS #:KI1451000
Fraction by Wt: 6-8%
Other REC Limits:NONE RECOMMENDED

Ingred Name:1,3-DIOXOLANE
CAS:646-06-0
RTECS #:JH6760000
Fraction by Wt: 3-5%
Other REC Limits:NONE RECOMMENDED

Ingred Name:MIXTURE OF LITHIUM SALTS
Fraction by Wt: 2-3%
Other REC Limits:NONE RECOMMENDED

Ingred Name:STEEL CASING & NON-HAZARDOUS COMPONENTS
Fraction by Wt: 34-4%
Other REC Limits:NONE RECOMMENDED

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

LD50 LC50 Mixture:PRODUCT'S LD50 (ORAL RAT) WAS NOT STATED
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazard

s Acute and Chronic:RISK OCCURS IF CELL VENTS OR IS OPENED. ACUTE-ELECTROLYTE IS MILD IRRITANT. INTACT LITHIUM IS REACTIVE. AVOID CONTACT. CHRONIC-MAY CAUSE DERMATITIS. SOME COMPONENTS HAVE BEEN SHOWN TO BE TERATOGENIC T O ANIMALS. AVOID CONTACT.

Explanation of Carcinogenicity:MFR GAVE THE ABOVE LISTINGS ON THE MSDS BUT NO OTHER COMMENTS ABOUT CARCINOGENICITY WERE RECORDED.

Effects of Overexposure:EXPOSURE TO SKIN OR EYES MAY CAUSE IRRITATION. INHALATION MAY RESULT IN DIF FICULTY BREATHING.

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

First Aid:EYE:FLUSH W/WATER FOR 15 MIN. SEEK MEDICAL ASSISTANCE.
SKIN:FLUSH W/WATER FOR 15 MIN. SEEK, MEDICAL ASSISTANCE.
INHALATION:REMOVE TO FRESH AIR. SEEK MEDICAL ASSISTANCE.

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

Extinguishing Media:LITH-X, DRY SAND.
Fire Fighting Procedures:COOL BATTERIES W/EXTINGUISHING MEDIA, REMOVE ADJACENT COMBUSTIBLES IF SAFE TO DO. SEL F-CONTAINED BREATHING APPARATUS REQUIRED.
Unusual Fire/Explosion Hazard:CELLS CAN VENT ELECTROLYTE >160F. HEATING ABOVE 354F WILL MELT LITHIUM & IS A SEVERE FIRE & EXPLOSION HAZARD. ELECTROLYTE IS FLAMMABLE.

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

Spill Release Procedures:ALLOW BATTERY TO COOL & VAPOR TO DISSIPATE. AVOID CONTACT. AVOID INHALATION OF VAPORS. REMOVE SPILLED ELECTROLYTE W/ABSORBENT MATERIAL. WEAR FULL FACE ORGANIC CARTRIDGE RESP IRATOR.
Neutralizing Agent:MFR GAVE NO INFORMATION OF MSDS.SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions:BATTERIES MAY EXPLODE, IGNITE OR VENT ELECTROLYTE IF CRUSHED, OPENED, PUNCTURED OR EXPOSED TO >160F. DO NOT SHORT CIRCUIT, INSTALL W/REVERSE POLARITY.
Other Precautions:DO NOT RECHARGE. DO NOT INCINERATE.

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

Respiratory Protection:U

SE FULL FACE ORGNIC VAPOR RESPIRATOR IF CELL VENTS.

Ventilation:PROVIDE IF CELL VENTS.

Protective Gloves:NATURAL OR BUTYL RUBBER GLOVES

Eye Protection:CHEMICCAL GOGGLES.

Other Protective Equipment:USE ENCAPSULATING SUIT IF FIRE OCCURS.

Work Hygienic Practices:AVOID EXPOSURE. WASH HANDS AFTER HANDLING.

Supplemental Safety and Health

THIS MSDS OBTAINED BY DDRV & WAS ENTERED AT THEIR REQUEST.

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

HCC:N1

NRC/State Lic Num:NONE

Me

It/Freeze Pt:M.P/F.P Text:SECT. IV

Solubility in Water:DO NOT EXPOSE TO H2O

Appearance and Odor:APPEARANCE OF SMALL BATTERY; CYLINDRICAL OR BOXLIKE. ODOR:NONE

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

Stability Indicator/Materials to Avoid:YES

DO NOT EXPOSE WATER.

Stability Condition to Avoid:DO NOT HEAT ABOVE 160F, PUNCTURE, OPEN CELL, SHORT CIRCUIT, OR ATTEMPT TO RECHARGE.

Hazardous Decomposition Products:MAY INCLUDE CARBON MONOXIDE & CAUSTIC LITHIUM OXI

DE.

Conditions to Avoid Polymerization:WILL NOT OCCUR.

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

Waste Disposal Methods:FULLY DISCHARGE PRIOR TO DISPOSAL. DISPOSE OF I/AW FEDERAL, STATE & LOCAL REGULATIONS.

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