

FUJI ELECTROCHEMICAL CO, LTD -- DL2032 LITHIUM MNO2 BATTERY -- 6135-01-210-8715  
===== Product Identification =====

Product ID:DL2032 LITHIUM MNO2 BATTERY  
MSDS Date:10/19/1988  
FSC:6135  
NIIN:01-210-8715  
MSDS Number: BXYFR  
=== Responsible Party ===  
Company Name:FUJI ELECTROCHEMICAL CO, LTD  
Address:5-36-11 SHIMBASHI  
City:MINATO-KU TOKYO 105 JAPAN  
Emergency Phone Num:203-796-4000/617-449-7600  
Preparer  
's Name:T. MIZUNO  
CAGE:S7173

=== Contractor Identification ===  
Company Name:DURACELL INC TECHNICAL SALES AND MARKETING GROUP  
Address:BERKSHIRE CORPORATE PARK  
Box:City:BETHEL  
State:CT  
ZIP:06801  
Country:US  
Phone:203-796-4000  
CAGE:90303  
Company Name:FUJI ELECTROCHEMICAL CO LTD  
Address:HAMAGOMU BLDG 5-36-11 SHIMBASH MINATO-KU  
Box:City:TOKYO 105  
Country:JA  
Phone:203-796-4000 (IMPORTER)  
CAGE:S7173

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

Ingred Name:LITHIUM METAL  
CAS:743  
9-93-2  
RTECS #:OJ5540000  
Fraction by Wt: 2.5%  
Other REC Limits:NONE RECOMMENDED

Ingred Name:MANGANESE DIOXIDE  
CAS:1313-13-9  
RTECS #:OP0350000  
Fraction by Wt: 30%  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:5 MG MN/M3 CEILING  
ACGIH TLV:5 MG MN/M3

Ingred Name:GRAPHITE, SYNTHETIC  
CAS:7440-44-0  
RTECS #:FF5250100  
Fraction by Wt: 3%  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:15 MG/M3 TDUST  
ACGIH TLV:2 MG/M3 TDUST; 9495

Other REC Limits:NONE RECOMMENDED

Ingred Name:DIMETHOXYETHANE

CAS:110-71-4

RTECS #:K11451000

Fraction by Wt: 2.5%

Other REC Limits:NONE RECOMMENDED

Ingred Name:LITHIUM PERCHLORATE

CAS:7791-03-9

Fraction by Wt: 0.5%

Other REC Limits:NONE RECOMMENDED

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===== Hazards Identification =====  
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Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES

Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO

Health Hazards Acute and Chronic:ACUTE: RISK OF EXPOSURE ONLY IF

BATTERY RUPTURES OR VENTS. EXPOSURE TO DME MAY BE HARMFUL; MAY CAUSE REPRODUCTIVE HARM. LITHIUM MAY CAUSE THERMAL & CHEMICAL BURNS ON CONTACT. CHRONIC: NONE SPECIFIED BY MANUFACTURER.

Explanation of Carcinogenicity:NO INGREDIENT OF A CONCENTRATION OF 0.1% OR GREATER IS LISTED AS A CARCINOGEN OR SUSPECTED CARCINOGEN.

Effects of Overexposure:SKIN-BURNS. EYES-BURNS. INHALED-UNKNOWN. INGESTED-UNKNOWN.

Medical Cond Aggravated by Exposure:AN ACUTE EXPOSURE GENERALLY WILL NOT AGG

RAVATE ANY MEDICAL CONDITION.

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===== First Aid Measures =====  
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First Aid:EYES-IMMEDIATELY FLUSH WITH WATER FOR 15 MINUTES. SEEK MEDICAL ATTENTION. SKIN-REMOVE CONTAMINATED CLOTHES. FLUSH WITH WATER. INHALED-REMOVE TO FRESH AIR. INGESTED-CONTACT NATIONAL BATTERY INGESTION HOTLINE 202-625-3333. OBTAIN IMMEDIATE MEDICAL ATTENTION.

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===== Fire Fighting Measures =====  
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Extinguishing Media:WATER.

Fire Fighting Pro

cedures:WEAR SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE GEAR. COOL FIRE EXPOSED CONTAINERS WITH WATER. Unusual Fire/Explosion Hazard:FIRE & EXPLOSION MAY OCCUR AS A RESULT OF STACKING OR JUMBLING A LOTS OF BATTERIES.

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

Spill Release Procedures:LEAVE AREA TO ALLOW BATTERIES TO COOL AND VAPRS TO DISSAPATE. AVOID SKIN AND EYE CONTACT OR INHALATION OF VAPORS. REMOVE SPILLED LIQUID WITH ABSORBENT AND INCINERATE.

Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions:AVOID MECHANICAL OR ELECTRICAL ABUSE. Other Precautions:BATTERIES MAY EXPLODE, PYROLIZE OR VENT IF SHORTED, DISASSEMBLED, CRUSHED, RECHARGED OR EXPOSED TO FIRE OR HIGH TEMPERATURES.

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

Respiratory Protection:IF ENGINEERING CONTROLS FAIL OR NON-ROUTINE USE OR A N EMERGENCY OCCURS; WEAR AN MSHA/NIOSH APPROVED RESPIRATOR OR AN AIR-SUPPLIED RESPIRATOR OR SCBA, AS REQUIRED. USE IN ACCORDANCE WITH 29 CFR 1910.13 4 AND MANUFACTURER'S RECOMMENDATIONS.

Ventilation:IF VENTING; USE ADEQUATE MECHANICAL VENTILATION OR LOCAL EXHAUST TO MAINTAIN EXPOSURE BELOW TLV(S).

Protective Gloves:RUBBER.

Eye Protection:SAFETY GLASSES.

Other Protective Equipment:NONE.

Work Hygienic Practices:WASH HANDS AFTER HANDLING AND BEFORE EATING, DRINKING, OR SMOKING. LAUN DER CONTAMINATED CLOTHES BEFORE REUSE.

Supplemental Safety and Health

BATTERY SHOULD BE IN ACCORDANCE WITH ANSI STANDARD C18.3M-1991 USING SPECIFICATION SHEET 10-0787-0126 FOR ANSI/NEDA NUMBER 5004LC.

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

HCC:N1

Appearance and Odor:BATTERY. CYLINDRICAL. 0.787 X 0.106 INCHES. 3.0 VOLTS.

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

Stability Indicator/Materials to Avoid:YES  
NONE SPECIFIED BY MANUFAC

TURER.

Stability Condition to Avoid:DO NOT HEAT, DISASSEMBLE, RECHARGE OR  
JUMBLE UP.

Hazardous Decomposition Products:NONE SPECIFIED BY MANUFACTURER.

Conditions to Avoid Polymerization:WILL NOT OCCUR.

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

Waste Disposal Methods:DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE AND  
FEDERAL ENVIRONMENTAL REGULATIONS. OPEN BATTERIES SHOULD BE TREATED  
AS HAZARDOUS WASTE.

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