

SANYO ENERGY USA CORP -- MANGANESE DIOXIDE LITHIUM PRIMARY BATTERIES --  
6135-01-205-5965

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

Product ID:MANGANESE DIOXIDE LITHIUM PRIMARY BATTERIES

MSDS Date:01/01/1999

FSC:6135

NIIN:01-205-5965

MSDS Number: BZQYR

=== Responsible Party ===

Company Name:SANYO ENERGY USA CORP

Address:2001 SANYO AVE

City:SAN DIEGO

State:CA

ZIP:92173

Country:US

Info Phone Num:619-661-66

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Emergency Phone Num:619-661-6620

CAGE:00JU0

=== Contractor Identification ===

Company Name:SANYO ENERGY(U.S.A.) CORP.

Address:2001 SANYO AVE

Box:City:SAN DIEGO

State:CA

ZIP:92173

Country:US

Phone:619-661-6620

CAGE:00JU0

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

Ingred Name:MANGANESE DIOXIDE

CAS:1313-13-9

RTECS #:OP0350000

Other REC Limits:NONE RECOMME

OSHA PEL:5 MG MN/M3 CEILING

ACGIH TLV:5 MG MN/M3

Ingred Name:LITHIUM

CAS:7439-93-2

RTECS #:OJ5540000

Other REC L

imits:NONE RECOMME

Ingred Name:PROPYLENE CARBONATE (PC)

CAS:108-32-7

RTECS #:FF9650000

Other REC Limits:NONE RECOMME

Ingred Name:DIMETHOXYETHANE (DME)

CAS:110-71-4

RTECS #:KI1451000

Other REC Limits:NONE RECOMME

Ingred Name:LITHIUM PERCHLORATE

CAS:7791-03-9

Fraction by Wt: UNKNOW

Other REC Limits:NONE RECOMMENDED

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

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES

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

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Health Hazards Acute and Chronic:THESE CHEMICALS ARE CONTAINED IN A SEALED CAN. RISK OF EXPOSURE OCCURS ONLY IF THE BATTERY IS MECHANICALLY OR ELECTRICALLY ABUSED. THE MOST LIKELY RISK IS ACUTE EXPOSURE WHEN A CELL VENTS. DME IS BELIEVED TO BE SLIGHTLY TO MODERATELY TOXIC, AND PROPYLENE CARBONATE IS CONSIDERED TO BE NON-TOXIC BUT MODERATELY IRRITATING TO THE EYES. CIC10, IS IRRITATING TO SKIN, EYES, AND MUCOUS MEMBRANES. CONTACT OF ELECTROLYTE AND EXTRUDED LITHIUM WITH SKIN AND EYES SHOULD BE AVOIDED.

Effects of Overexposure:DME MAY BE A REPRODUCTIVE HAZARD. LITHIUM CAN CAUSE THERMAL & CHEMICAL BURNS ON CONTACT WITH SKIN.

Medical Cond Aggravated by Exposure:AN ACUTE EXPOSURE WILL GENERALLY NOT AGGRAVATE ANY MEDICAL CONDITION.

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

First Aid:IN CASE OF SKIN CONTACT WITH CONTENTS OF BATTERY, FLUSH IMMEDIATELY WITH WATER. FOR EYE CONTACT, FLUSH WITH COPIOUS AMOUNT OF WATER F

OR 15 MINUTES. DO NOT INHALE VENTED MATERIAL. IF IRRITATION PERSIST , GET MEDICAL HELP.

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Fire Fighting Measures  
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Flash Point:NONE PROVIDED BY  
Lower Limits:NOT AVAILABL  
Upper Limits:NOT AVAILABL  
Extinguishing Media:WATER  
Fire Fighting Procedures:IN CASE OF FIRE IN AN ADJACENT AREA, USE WATER, CO2 OR DRY CHEMICAL EXTINGUISHERS IF CELL ARE PACKED IN THEIR ORIGINAL CONTAINERS SINCE THE FUEL OF THE FIRE IS BASICALLY PAPER PRODUCTS. FOR BU  
LK QUAN TITIES OF UNPACKAGED CELL US LITH-X (GRAPHITE BASE). IN THIS CASE USE NO WATER.  
Unusual Fire/Explosion Hazard:NONE PROVIDED BY MFR

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Accidental Release Measures  
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Spill Release Procedures:THE PREFERRED RESPONSE IS TO LEAVE AREA AND ALLOW BATTERIES TO COOL AND VAPORS TO DISSIPATE. AVOID SKIN AND EYE CONTACT OR INHALATION OF VAPORS. REMOVE SPILLED LIQUID WITH ABSORBENT AND INCINERATE.

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Handling and Storage  
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Handling and Storage Precautions:AVOID MECHANICAL OR ELECTRICAL ABUSE.  
Other Precautions:BATTERIES MAY EXPLODE OR CAUSE BURN. IF DISASSEMBLED, CRUSHED, RECHARGED OR EXPOSED TO FIRE OR HIGH TEMPERATURE. DO NOT SHORT NOR INSTALL W/INCORRECT POLARITY.

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Exposure Controls/Personal Protection  
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Respiratory Protection:NOT NESCESSARY UNDER CONDITIONS OF NORMAL USE.  
Ventilation:NOT NESCESSARY UNDER CONDITIONS OF NORMAL USE.  
Protective Gloves:NOT NESCESSARY UNDER CONDITIONS OF NORMAL USE.  
Eye Protection:NOT NESCESSARY UNDER CONDITIONS OF NORMAL USE.  
Other Protective Equipment:NOT NESCESSARY UNDER CONDITIONS OF NORMAL USE.  
Supplemental Safety and Health  
MANGANESE DIOXIDE LITHIUM PRIMARY BATTERIES. MODEL: COIN AND CYLINDRICAL (SE) TYPE BATTERY.

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Physical/Chemical Properties  
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HCC:Z6  
NRC/State Lic Num:NONE  
pH:UNKNON  
Appearance and Odor:SEALED NON-RECHAGABLE BATTERY.

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Stability an

d Reactivity Data =====

Stability Indicator/Materials to Avoid: YES

NONE PROVIDED BY MFR

Stability Condition to Avoid: DO NOT HEAT, DIASSEMBLE OR RECHARGE.

Conditions to Avoid Polymerization: WILL NOT OCCUR.

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

Waste Disposal Methods: DISPOSE OF IN ACCORDANCE WITH APPROPRIATE REGULATIONS. OPEN CELLS SHOULD BE TREATED AS HAZARDOUS WASTE.

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