

SANYO ENERGY USA CORP -- MANGANESE DIOXIDE LITHIUM PRIMARY BATTERIES,HP 1420-0854  
-- 6135-01-314-8416

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

Product ID:MANGANESE DIOXIDE LITHIUM PRIMARY BATTERIES,HP 1420-0854

MSDS Date:05/10/1994

FSC:6135

NIIN:01-314-8416

MSDS Number: CFKTG

=== Responsible Party ===

Company Name:SANYO ENERGY USA CORP

Address:2001 SANYO AVE

City:SAN DIEGO

State:CA

ZIP:92173

Country:US

Info Phone Num:619-661-6620

Emergency Phone Num:619-661-6620

CAGE:00JU0

=== Contractor Identification ===

Company Name:J.G.B. ENTERPRISES

Address:115 METROPOLITAN DR

Box:209

City:LIVERPOOL

State:NY

ZIP:13088

Country:US

Phone:315-451-2770

CAGE:61125

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:131

3-13-9  
RTECS #:OP0350000  
Other 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  
Other REC Limits:NONE RECOMMENDED

Ingred Name:PROPYLENE CARBONATE (PC)  
CAS:108-32-7  
RTECS #:FF9650000  
Other REC Limits:NONE RECOMMENDED

Ingred Name:DIMETHOXYETHANE (DME)  
CAS:110-71-4  
RTECS #:KI1451000  
Other REC Limits:NONE RECOMMENDED

Ingred Name:LITHIUM PERCHLORATE  
CAS:7791-03-9  
Other REC Limits:NONE RECOMMENDED

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

LD50 LC50 Mixture:LD50 (ORAL, RAT) IS UNKNOWN.  
Routes of Entry: Inhalation:NO Skin:NO Ingestion:NO  
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:THESE CHEMICALS ARE CONTAINED IN A  
SEALED CAN. RISK OF EXPOSURE OCCURS ONLY IF BATTERY IS  
MECHANICALLY/ELECTRICALLY ABUSED. ACUTE & CHRONIC- ELECTROLYTE  
(DME) IS SLIGHTLY TO MODERATELY TOXIC. MAY CAUS E EYE, SKIN &  
MUCOUS MEMBRANES IRRITATION

Explanation of Carcinogenicity:NONE  
Effects of Overexposure:NONE. IF BROKEN OR IN FIRE: IRRITATION  
Medical Cond Aggravated by Exposure:NONE

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

First Aid:IF BROKEN/FIRE: GET MEDICAL HELP IF SYMPTOMS PERSIST.  
INHALED:MOVE TO FRESH AIR. EYES:IMMEDIATELY FLUSH WITH WATER FOR 15  
MINUTES. HOLD EYELIDS OPEN. SKIN:WASH WITH WATER. ORAL:IF  
BATTERY/OPEN BATTERY IS INGESTED, DO NOT INDUCE VOMITING OR GIVE  
FOOD/DRINK. SEEK

IMMEDIATE MEDICAL ATTENTION. CALL NATIONAL BATTERY  
INGESTION HOTLINE FOR ADVICE & FOLLOWUP (202-625-3333).

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

Flash Point:NONE  
Lower Limits:NOT RELEVANT  
Upper Limits:NOT RELEVANT  
Extinguishing Media:FOR BURNING BATTERIES IN BULK QUANTITIES OF  
UNPACKED CELLS, USE CLASS D EXTINGUISHERS; LITH-X, POWDERED  
GRAPHITE  
Fire Fighting Procedures:NO WATER, SAND, CARBON DIOXIDE, SODA-ACID OR  
HALOGENATED EXTINGUISHERS. WEAR N  
IOSH-APPROVED SELF CONTAINED  
BREATHING APPARATUS & FULL PROTECTIVE CLOTHING.  
Unusual Fire/Explosion Hazard:HAZARDOUS DECOMPOSITION PRODUCTS MAY BE  
FORMED.

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

Spill Release Procedures:IF BROKEN, ALLOW BATTERIES TO COOL AND VAPORS  
TO DISSIPATE. AVOID EYES AND SKIN CONTACT. REMOVE SPILLED LIQUID  
WITH INERT ABSORBENT AND INCINERATE.  
Neutralizing Agent:NOT RELEVANT

===== Handling and Storage =====  
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Handling and Storage Precautions:STORE IN COOL, DRY PLACE. BATTERIES  
MAY EXPLODE OR CAUSE BURNS, IF DISASSEMBLED, CRUSHED, RECHARGED,  
EXPOSED TO FIRE OR HIGH TEMPERATURE.  
Other Precautions:DO NOT INCINERATE. DO NOT TOUCH BROKEN OR LEAKING  
BATTERIES. AVOID MECHANICAL OR ELECTRICAL ABUSE. DO NOT ATTEMPT TO  
RECHARGE. AVOID SHORT CIRCUITS. DO NOT CARRY BATTERIES LOOSE IN  
POCKET OR BAG. KEEP BATTERIES AWAY FROM SMALL CHILDREN.

===== Exposure Controls/Per  
sonal Protection =====

Respiratory Protection:NOT NECESSARY UNDER NORMAL CONDITIONS OF USE.  
WEAR NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS WHEN LARGE  
NUMBERS OF CELLS ARE INVOLVED IN A FIRE.  
Ventilation:ADEQUATE  
Protective Gloves:RUBBER FOR LEAKERS  
Eye Protection:GOGGLES FOR LEAKERS  
Other Protective Equipment:EYE BATH, WASHING FACILITIES  
Work Hygienic Practices:OBSERVE GOOD INDUSTRIAL HYGIENE PRACTICES AND  
RECOMMENDED PROCEDURES. WASH THOROUGHLY BEFORE EATING,  
D

RINKING/SMOKING.  
Supplemental Safety and Health

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

HCC:N1  
NRC/State Lic Num:NOT RELEVANT  
Spec Gravity:NOT RELEVANT  
Viscosity:NOT RELEVANT  
Evaporation Rate & Reference:NOT RELEVANT  
Solubility in Water:NOT RELEVANT  
Appearance and Odor:BATTERY - ODORLESS

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

Stability Indicator/Materials to Avoid:YES  
WATER WITH INTERNAL CONTNETS  
Stability Condition to Avoid:FIRE,  
HEAT, MOISTURE, RECHARGE,  
DISASSEMBLE

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

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

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