

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:13

13-13-9
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 CAUSE EYE, SKIN &
MUCOUS MEMBRANES IRRITATION

N.
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. SEE

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

NIOSH-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 =====

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/Personal 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,

DRINKING/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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