

SANYO BATTERIES/SANYO ENERGY -- MANGANESE DIOXIDE LITHIUM PRIMARY BATTERIES (SEE SUPPL DATA) -- 6135-01-454-9408

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

Product ID:MANGANESE DIOXIDE LITHIUM PRIMARY BATTERIES (SEE SUPPL DATA)

MSDS Date:01/01/1999

FSC:6135

NIIN:01-454-9408

Status Code:A

MSDS Number: CLQNP

=== Responsible Party ===

Company Name:SANYO BATTERIES/SANYO ENERGY

Address:2055 SANYO AVE

City:SAN

DIEGO

State:CA

ZIP:92173

Country:US

Info Phone Num:619-661-4888

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

Company Name:TNR TECHNICAL INC

Address:301 CENTRAL PARK DR

Box:City:SANFORD

State:FL

ZIP:32771

Country:US

Phone:407-321-3011

CAGE:1HJ92

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

Ingred

Name: DIMETHOXYETHANE (DME)

CAS: 110-71-4

RTECS #: KI1451000

Ingred Name: LITHIUM PERCHLORATE

CAS: 7791-03-9

Ingred Name: MANGANESE DIOXIDE

CAS: 1313-13-9

RTECS #: OP0350000

OSHA PEL: C5 MG/M3

ACGIH TLV: 5 MG/M3

Ingred Name: LITHIUM

CAS: 7439-93-2

RTECS #: OJ5540000

Ingred Name: PROPYLENE CARBONATE

CAS: 108-32-7

RTECS #: FF9650000

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

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

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

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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. LIC104 IS IRRITATING TO SKIN, EYES AND MUCOUS MEMBRANES. CONTACT OF ELECTROLYTE AND EXTRUDED LITHIUM WITH SKIN AND EYES SHOULD BE AVOIDED.

Explanation of Carcinogenicity: NONE

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

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

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

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

Flash Point:DME=-1 C

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 BULK QUAN TITIES OF UN
PACKAGED CELL USE LITH-X
(GRAPHITE BASE). IN THIS CASE, USE NO WATER.

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

Spill Release Procedures:THE PREFERRED RESPONSE IS TO LEAVE THE 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 .

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

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 WITH INCORRECT POLARITY.

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

Respiratory Protection:NOT NECESSARY UNDER CONDITIONS OF NORMAL USE.

Ventilation:NOT NECESSARY UNDER CONDITIONS OF NORMAL USE

Protective Gloves:NOT NECESSARY UNDER CONDITIONS OF NORMAL USE.

Eye Protection:NOT NECESSARY UNDER CONDITIONS OF NORMAL USE.

Other Protective Equipment:NOT NECESSARY UNDER CONDITIONS OF NORMAL
USE.

Supplemental Safety and Health

(P/N TRADE NAME) CONT'D: COIN AND CYLINDRICAL (SE) TYPE.

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

HCC:Z6

Boiling Pt:B.P. Text:PC-242,DME-85

Vapor Pres:PC-0.03,DME-61

Vapor Density:DME-3.1

Solubility in Water:DME-COMPLETE,PC MODERATE

Appearance and Odor:LITHIUM IS A SOFT SILVERY METAL,DME IS A COLORLESS
LIQUID WITH A SWEET

ODOR.

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

Stability Indicator/Materials to Avoid: YES

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

Conditions to Avoid Polymerization: WILL NOT OCCUR.

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

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

===== MSDS Transport Information =
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Transport Information: DOT DESCRIPTION (US ONLY): PROPER SHIPPING NAME: NITROUS OXIDE. HAZARD CLASS: 2.2 (NONFLAMMABLE). IDENTIFICATION NUMBER: UN1070. REPORTABLE QUANTITIES: NOT APPLICABLE. LABELING: NONFLAMMABLE GAS, OXIDIZER. ADR/RID (EU ONLY): CLASS 2, 2 O. SPECIAL PRECAUTIONS: CYLINDERS SHOULD BE TRANSPORTED IN A SECURE UPRIGHT POSITION IN A WELL VENTILATED TRUCK.

===== Regulatory Information =====

SARA Title III Inf

ormation: SARA: THE THRESHOLD PLANNING QUANTITY FOR MATERIAL IS 10,000 LBS.

Federal Regulatory Information: TSCA; MATERIAL IS LISTED IN TSCA INVENTORY. OSHA PROCESS SAFETY MANAGEMENT: MATERIALS ARE NOT LISTED IN APPENDIX A OF 29 CFR 1910.119 AS HIGHLY HAZARDOUS CHEMICALS.

State Regulatory Information: NO DATA PROVIDED BY MANUFACTURER

===== Other Information =====

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