Trade Name: CR2032 SANYO LITHIUM BATTERY COIN CELL TYPE 2CR5

MSDS Date: **11/17/1987**
Tech Review: **08/23/1991**

General Information

Company: **SANYO ENERGY CORPORATION**
Address: **600 SUPREME DRIVE**

City: **BENSENVILLE**
State: **IL**
Zip: **60106**
Info Phone Number: **(312) 595-5600**
Emergency Phone Number: **(312) 595-5600**

Other company information:

Name: **SANYO ENERGY CORP, BATTERY DIV**
Address: **200 RISER RD**
City: **LITTLE FERRY**
State: **NJ**
Zip: **07643**

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City: **LITTLE FERRY**
State: **NJ**
Zip: **07643**
Country: **US**
Info Phone Number: **201-641-2333**

Ingredients

Cas: **1313-13-9**
RTECS #: **OP0350000**

Name: **MANGANESE DIOXIDE**
% Text: **25-35%**
OSHA PEL: **5 MG/CUM**
ACGIH TLV: **5 MG/CUM (MN)**

Cas: **108-32-7**
RTECS #: **FF9650000**
Name: **1,3-DIOXOLAN-2-ONE, 4-METHYL-DIPROPLYENE CARBONATE, PROPYLENE CARBONATE, CARBONIC ACID, CYCLIC PROPYLENE ESTER**
% Text: **2-8%**

Cas: **100-79-8**
RTECS #: **JI0400000**
Name: **DIOXOLANE**
% Text: **2-6%**

Cas: **7439-93-2**
RTECS #: **OJ5540000**
Name: **LITHIUM**
% Text: **2-4%**

Cas: **7719-09-7**
RTECS #: **XM5150000**
Name: **THIONYL CHLORIDE**
Other REC Limits: **1 PPM**
OSHA PEL: **C 1 PPM**
ACGIH TLV: **C 1 PPM; 9192**

Name: **DIMETHOXYETHANE**
% Text: **<5%**

Health Hazards Data

Skin: **YES**
Ingestion: **YES**
Health Hazards Acute And Chronic: **SKIN/EYES: CHEMICAL BURNS, IRRITATION, & HARMFUL. INGESTION: HARMFUL.**
Explanation Of Carcinogenicity: **NONE**
Signs And Symptions Of Overexposure: **SKIN/EYES: CHEMICAL BURNS, IRRITATION, & HARMFUL. INGESTION: HARMFUL.**
First Aid: **SKIN: WASH W/SOAP & WATER. EYES: FLUSH THOROUGHLY W/WATER & CONTINUE FLUSHING FOR AT LEAST 15 MINS. INGESTION: OBTAIN MEDICAL ATTENTION IN ALL CASES.**
Spill Release Procedures: **WEAR PROTECTIVE EQUIPMENT & VENTILATE AREA. NEUTRALIZE W/LIME OR OTHER BASIC SUBSTANCES.**
Neutralizing Agent: **LIME OR OTHER BASIC SUBSTANCES**
Waste Disposal Methods: **DON'T RECHARGE, WHICH CAUSES LEAKAGE/EXPLOSION. BURY IN LANDFILL ACCORDING TO APPROPRIATE FEDERAL/STATE/LOCAL REGS AS HAZARDOUS WASTE. DON'T PUNCTURE/MUTILATE/INCINERATE. SUBMERSE EXPOSED LITHIUM FOIL IN MINERAL OIL IN PLASTIC BAGS TO STOPOXIDATION.**
Handling And Storage Precautions: **AVOID FUME INHALATION IN FIRE/CONTACT W/SKIN/EYE/INGESTION/PROLONGED SHORT CIRCUIT/METAL COVERED TABLE/BELT/OPENING/SEAL DAMAGE. STORE IN COOL PLACE.**
Other Precautions: **PREVENT CONDENSATION. AVOID HIGH TEMPS, WHICH RESULTS IN SHORTENED BATTERY LIFE. DON'T JUMBLE BATTERY IN BULK CONTAINER. APPLY INSULATING MATERIAL TO ASSEMBLY WORK SURFACE. SOLDER/WELD W/PRECAUTION. S TORE IN CLIMATE CONTROLLED WAREHOUSE.**

Fire and Explosion Hazard Information

Extinguishing Media: **WATER/CO2/DRY CHEMICAL. LITHIUM FIRE: LITH-X (GRAPHITE BASE)/DON'T USE WATER/CO2/DRY CHEMICAL/FOAM/HALOGEN EXTINGUISHER.**
Fire Fighting Procedures: **WEAR SELF-CONTAINED BREATHING APPARATUS & FULL PROTECTIVE CLOTHING IN ADJACENT AREA. USE WATER TO COOL BATTERY ONLY IF LITHIUM FOIL ISN'T EXPOSED.**
Unusual Fire/Explosion Hazard: **BATTERY RUPTURES AT HIGH TEMPS. RECHARGING OF BATTERY CAUSES AN EXPLOSION. INCINERATION MAY VAPORIZE/VENT THE LIQUID ELECTROLYTE/CAUSE CELL TO RUPTURE.**

Control Measures

Respiratory Protection: **NOT NECESSARY UNDER CONDITIONS OF NORMAL USE.**
Ventilation: **NOT NECESSARY UNDER CONDITIONS OF NORMAL USE.**
Protective Gloves: **AS REQUIRED.**
Eye Protection: **AS REQUIRED.**
Supplemental Safety and Health: **THIONYL CHLORIDE IS CORROSIVE TO METALS & PLASTICS.**

Physical Chemical Properties

B. P. Text: **168.8F**
Percent Volatiles by Volume:

Reactivity Data

Stability Indicator: **YES**
Stability Condition To Avoid: **ELEVATED TEMPERATURES >212F**
Materials To Avoid: **WATER IN ANY FORM, CONDUCTIVE MATERIALS, & CORROSIVE COMPOUNDS**
Hazardous Decomposition Products: **CAUSTIC SMOKE OF LITHIUM OXIDE, HYDROGEN, SULFUR DIOXIDE GAS, & HYDROGEN CHLORIDE**