

# MATERIAL SAFETY DATA SHEET

For R&D use only. Not for drug, household or other uses.

Click <http://www.lookchem.com/cas-443/4437-85-8.html> for suppliers of this product.

## Composition/Information on Ingredient

**Cas:**

4437-85-8

**Code:**

M

**RTECS:**

JI4582000

**Code:**

M

**Name:**

4-ETHYL-1,3-DIOXOLAN-2-ONE (BUTYLENE CARBONATE)

**Other REC Limits:**

NONE RECOMMENDED 3

**OSHA PEL:**

NOT ESTABLISHED

**Code:**

M

**OSHA STEL:****Code:****ACGIH TLV:**

NOT ESTABLISHED

**Code:**

M

**ACGIH STEL:**

N/P

**Code:**

## Control Measures

**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:**

Equipment NOT NECESSARY UNDER CONDITIONS OF NORMAL USE.

**Work Hygienic Practices:**

MFR: USE GOOD INDUSTRIAL HYGIENE PRACTICE. IF HANDLING LEAKING BATTERIES USE STRICT CHEMICAL HYGIENE PRACTICE.

**Supplemental Safety and Health:**

AVOID ALL CONTACT W/BATTERY INTERNALS. WASH THOROUGHLY AFTER HANDLING. 6

## Health Hazards Data

**LD50/LC50/Mixture:**

LD50 (ORAL RAT) IS UNKNOWN

**Route Of Entry Inds - Inhalation:**

YES

**Skin:**

YES

**Ingestion:**

YES

**Carcinogenicity Inds - NTP:**

NO

**IARC:**

NO

**OSHA:**

NO

**Health Hazards Acute And Chronic:**

CHEMICALS ARE IN A SEALED CAN. EXPOSURE OCCURS WHEN BATTERY HAS BEEN ABUSED. DME IS SLIGHTLY TO MODERATELY TOXIC. EC & BC ARE IRRITATING TO EYES. LiClF3SO3 IS IRRITATING TO SKIN, EYES & MUCOUS MEMBRANES. CONTACT OF ELECTROLYTE & EXTRUDED LITHIUM W/SKIN & EYES SHOULD BE AVOIDED.

**Explanation Of Carcinogenicity:**

MFR GAVE THE ABOVE LISTINGS ON THE MSDS BUT NO OTHER COMMENTS WERE RECORDED. 4

**Signs And Symptoms Of Overexposure:**

DMD MAY BE A REPRODUCTIVE HAZARD. LITHIUM CAN CAUSE THERMAL & CHEMICAL BURNS ON CONTACT W/SKIN.

**Medical Cond Aggravated By Exposure:**

AN ACUTE EXPOSURE WILL GENERALLY NOT AGGRAVATE ANY MEDICAL CONDITION.

**First Aid:**

FOR CONTACT OF BATTERY INTERNALS WITH-SKIN:FLUSH IMMEDIATELY W/WATER. -EYES:FLUSH WITH COPIOUS AMOUNTS OF WATER FOR 15 MINUTES. IF IRRITATION PERSISTS, GET MEDICAL ATTENTION. DO NOT INHALE VENTED MATERIAL.

**Spill Release Procedures:**

THE PREFERRED RESPONSE IS TO LEAVE AREA AND ALLOW BATTERIES TO COOL AND VAPORS TO DISSIPATE. AVOID SKIN & EYE CONTACT OR INHALATION OF VAPORS. REMOVE SPILLED LIQUID W/ABSORBENT & INCINERATE.

**Neutralizing Agent:**

MFR GAVE NO INFORMATION ON MSDS.

**Waste Disposal Methods:**

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

**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.

## Fire and Explosion Hazard Information

**Flash Point Method:**

N/P

**Flash Point:****Flash Point Text:**

NONE

**Autoignition Temp:****Autoignition Temp Text:**

N/A 5

**Lower Limits:**

UNKNOWN

**Upper Limits:**

UNKNOWN

**Extinguishing Media:**

WATER

**Fire Fighting Procedures:**

IN CASE OF FIRE IN AN ADJACENT AREA, USE WATER, CO2 OR SRY CHEMICAL EXTINGUISHERS IF CELL ARE PACKED IN THEIR ORIGINAL CONTAINERS SINCE THE FUEL IS PAPER.

**Unusual Fire/Explosion Hazard:**

FOR BULK QUANTITIES OF UNPACKAGED CELL US LITH-X (GRAPHITE BASE). IN THIS CASE USE NO WATER.

## Physical/Chemical Properties

**HCC:**

F8

**NRC/State Lic No:**

NONE

**Net Prop WT For Ammo:**

NO

**Boiling Point:****B.P. Text:**

UNKNOWN

**Melt/Freeze Pt:****Melt/Freeze Pt:**

NO

**Decomp Temp:****Decomp Text:**

UNKNOWN

**Vapor Pres:**

UNKNOWN

**Vapor Density:**

UNKNOWN

**Volatile Org Content %:**

NO

**Spec Gravity:**

UNKNOWN

**VOC Pounds/Gallon:**

NO

**Viscosity:**

N/P

**Evaporation Rate & Reference:**

UNKNOWN

**Solubility in Water:**

UNKNOWN

**Appearance and Odor:**

SEALED NON-RECHARGEABLE BATTERY.

**Percent Volatile by Volume:**

NO

**Corrosion Rate:**

UNKNOWN

**Reactivity Data:****Stability Indicator:**

YES

**Stability Condition To Avoid:**

DO NOT HEAT, DIASSEMBLE OR RECHARGE.

**Materials To Avoid:**

MFR GAVE NO INFORMATION ON MSDS.

**Hazardous Decomposition Products:**

N/A

**Hazardous Polymerization Indicator:**

NO

**Conditions To Avoid Polymerization:**

WILL NOT OCCUR.

## Toxicological Information

**Information:**

N/P

## MSDS Transport Information

**Information:**

N/P

## Regulatory Information

**Sara Title III Information:**

N/P

**Federal Regulatory Information:**

N/P

**State Regulatory Information:**

N/P

## Other Information

**Other Information:**

N/P

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