

BATTERY ENGINEERING INC -- LITHIUM THIONYL CHLORIDE CELL,33-60 HT(7136224-7),8908450505  
-- 1270-01-309-3077

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

Product ID:LITHIUM THIONYL CHLORIDE CELL,33-60 HT(7136224-7),8908450505

MSDS Date:05/24/1995

FSC:1270

NIIN:01-309-3077

MSDS Number: BXWMS

=== Responsible Party ===

Company Name:BATTERY ENGINEERING INC

Address:1636 HYDE PARK AVE

City:HYDE PARK

State:MA

ZIP:

02136

Country:US

Info Phone Num:617-361-7555

Emergency Phone Num:617-361-7555/800-424-9300(CHEMTREC)

CAGE:60289

=== Contractor Identification ===

Company Name:BATTERY ENGINEERING INC

Address:100 ENERGY DRIVE

Box:City:CANTON

State:MA

ZIP:02021

Country:US

Phone:781-575-0800

CAGE:60289

Company Name:HONEYWELL INC DEFENSE AVIONICS SYSTEMS DIV

Address:9201 SAN MATEO NE

Box:City:ALBUQUERQUE

State:NM

ZIP:87113-2227

Country:US

Phone:505-828-5000

CAGE:07187

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===== Composition/Information on Ingre

dients =====

Ingred Name:LITHIUM METAL  
CAS:7439-93-2  
RTECS #:OJ5540000  
Fraction by Wt: 4%  
Other REC Limits:NONE RECOMMENDED

Ingred Name:THIONYL CHLORIDE  
CAS:7719-09-7  
RTECS #:XM5150000  
Fraction by Wt: 39.5%  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:C 1 PPM  
ACGIH TLV:C 1 PPM; 9495

Ingred Name:ALUMINUM CHLORIDE, ANHYDROUS  
CAS:7446-70-0  
RTECS #:BD0525000  
Fraction by Wt: 6.5%  
Other REC Limits:NONE RECOMMENDED

Ingred Name:LITHIUM CHLORIDE  
CAS:7447-41-8  
RTECS #:OJ5950000  
Fraction by Wt:  
2%  
Other REC Limits:NONE RECOMMENDED

Ingred Name:STAINLESS STEEL  
Fraction by Wt: 42.5%  
Other REC Limits:NONE RECOMMENDED

Ingred Name:NICKEL (SARA 313) (CERCLA)  
CAS:7440-02-0  
RTECS #:QR5950000  
Fraction by Wt: 0.4%  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:1 MG/M3  
ACGIH TLV:1 MG/M3; 9495

Ingred Name:PAPER  
Fraction by Wt: 0.4%  
Other REC Limits:NONE RECOMMENDED

Ingred Name:CARBON  
Fraction by Wt: 4.7%  
Other REC Limits:NONE RECOMMENDED

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

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LD50 LC50 Mixture:LD50 (ORAL, RAT) IS NOT RELEVANT.

Routes of Entry: Inhalation:NO Skin:NO Ingestion:NO

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

Health Hazards Acute and Chronic:RISK OF EXPOSURE OCCURS ONLY IF CELL IS MECHANICALLY, PHYSICALLY/ELECTRICALLY ABUSED. TARGET ORGANS:EYES, SKIN, RESPIRATORY TRACT. ACUTE- VAPORS ARE VERY IRRITATING TO EYES, SKIN AND MUCOUS MEMBRANES. LITHIUM MAY CAUSE CHEMICAL BURNS UPON CONTACT WITH SKIN. MAY BE HARMFUL IF INGESTED.

CHRONIC- LUNG INJURY MAY OCCUR.

Explanation of Carcinogenicity:CONTAINS NICKEL.

Effects of Overexposure:RISK OF EXPOSURE OCCURS ONLY IF CELL IS MECHANICALLY, PHYSICALLY OR ELECTRICALLY ABUSED. IF CELL IS LEAKING: EYES, SKIN AND RESPIRATORY TRACT IRRITATION, THERMAL AND CHEMICAL BURNS

Medical Cond Aggravated by Exposure:ASTHMA, OTHER RESPIRATORY DISORDERS, SKIN ALLERGIES, ECZEMA

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

First Aid:EMPLOYEE B

REATHING VAPORS FROM VENTING CELL SHOULD BE REMOVED TO FRESH AIR. ANY SKIN OR MUCOUS MEMBRANE CONTACT WITH ELECTROLYTE SHOULD BE FOLLOWED BY FLUSHING WITH LARGE AMOUNT OF WATER. IN CASE OF E YE CONTACT, FLUSH WITH RUNNING WATER FOR AT LEAST 15 MINUTES. HOLD EYELIDS APART. SEEK MEDICAL ATTENTION IMMEDIATELY. INGESTION IS UNLIKELY. HOWEVER, CALL PHYSICIAN, IF OCCURED.

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

Flash Point:NOT RELEVANT

Extinguishing M

edia:DRY LITHIUM CHLORIDE, GRAPHITE POWDER, PYRENE G-1, LITH-X, CLASS D. DON'T USE WATER, MOIST SAND, CARBON DIOXIDE/SODA ASH

Fire Fighting Procedures:WEAR PROTECTIVE CLOTHING AND NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS OPERATED IN THE POSITIVE PRESSURE MODE.

Unusual Fire/Explosion Hazard:TOXIC FUMES MAY BE FORMED.

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

Spill Release Procedures:IF CELL VENTS OR IS PUNCTURED, VENTILATE AREA WELL. WEAR E

YE AND SKIN PROTECTION. RESPIRATORY PROTECTION MAY BE NECESSARY IN CONFINED SPACES. ABSORB LIQUID WITH SUITABLE MATERIAL SUCH AS DRY SAND OR CLAY. TRANSFER TO CONTAINER FOR LATER DISPOSAL.

Neutralizing Agent:NOT RELEVANT

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

Handling and Storage Precautions:STORE IN COOL, DRY PLACE. AVOID MECHANICAL, PHYSICAL OR ELECTRICAL ABUSE. DO NOT SHORT OR INSTALL WITH INCORRECT POLARITY. STORE BELOW 302F (150C).

Other P

recautions:DO NOT INCINERATE. DO NOT TOUCH BROKEN OR LEAKING BATTERIES. DO NOT ATTEMPT TO RECHARGE. DO NOT CARRY BATTERIES LOOSE IN POCKET OR BAG. KEEP BATTERIES AWAY FROM SMALL CHILDREN. BATTERIES MAY EXPLODE/VENT IF DISASSEMBLED, CRUSHED/IN FIRE.

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

Respiratory Protection:USE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS WHEN CELLS ARE INVOLVED IN A FIRE OR LEAKING IN CONFINED SPACES. FOR SPILL, USE FULL

L-FACE RESPIRATOR WITH PARTICULATE/ACID GAS FILTER MASK.

Ventilation:LOCAL

Protective Gloves:BUTYL RUBBER IF HANDLING LEAKERS

Eye Protection:SAFETY GLASSES WHEN HANDLING LEAKERS

Other Protective Equipment:EYE WASH STATION, QUICK DRENCH SHOWER

Work Hygienic Practices:OBSERVE GOOD PERSONAL HYGIENE PRACTICES AND RECOMMENDED PROCEDURES.

Supplemental Safety and Health

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

HCC:F8

NRC/State Lic Num:NOT RELEVANT

Melt/Freeze Pt:M.

P/F.P Text:-221F(LIQ.)

Spec Gravity:NOT RELEVANT

Viscosity:NOT RELEVANT

Evaporation Rate & Reference:NOT RELEVANT

Solubility in Water:NOT RELEVANT

Appearance and Odor:LITHIUM BATTERY

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

Stability Indicator/Materials to Avoid:YES

Stability Condition to Avoid:EXCESSIVE HEAT (TEMPERATURES ABOVE 302F/150C), HIGH HUMIDITY FOR EXTENDED PERIODS, RECHARGING, SHORT CIRCUITS

Hazardous Decomposition Products:SULFUR DIOXIDE, HYDR

# OGEN CHLORIDE

## ===== Disposal Considerations =====

Waste Disposal Methods: NEUTRALIZE WITH SODA LIME. DISCHARGED CELLS MAY CONTAIN SIGNIFICANT AMOUNT OF ENERGY. HANDLE WITH CARE. THEY SHOULD BE ELECTRICALLY ISOLATED AND PACKED FOR DISPOSAL. DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS. WASTE # D003

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