

BATTERY ENGINEERING INC. -- 655135-002(P/N 051036), LITHIUM THIONYL CHLORIDE CELL --
6135-01-295-2708

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Product Identification
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Product ID:655135-002(P/N 051036), LITHIUM THIONYL CHLORIDE CELL

MSDS Date:09/16/1996

FSC:6135

NIIN:01-295-2708

MSDS Number: BYHKT

=== Responsible Party ===

Company Name:BATTERY ENGINEERING INC.

Address:1636 HYDE PARK AVE

City:HYDE PARK

State:MA

ZIP:02136-2458

C

Country:US

Info Phone Num:617-361-7555

Emergency Phone Num:617-361-7555

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

Contract Num:SP0430-99-M-F936

CAGE:60289

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Composition/Information on Ingredients
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Ingred Name:LITHIUM METAL

CAS:7439-93-2

RTECS #:OJ5540000

Fraction by Wt: 4%

Ingred Name:THIONYL CHLORIDE

CAS:7719-09-7

RTECS #:XM5150000

Fracti

on by Wt: 39.5%
OSHA PEL:C 1 PPM
ACGIH TLV:C 1 PPM; 9192

Ingred Name:ALUMINUM CHLORIDE, ANHYDROUS
CAS:7446-70-0
RTECS #:BD0525000
Fraction by Wt: 6.5%

Ingred Name:LITHIUM CHLORIDE
CAS:7447-41-8
RTECS #:OJ5950000
Fraction by Wt: 2%

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; 9596

Ingred Name:P
APER
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 =====

LD50 LC50 Mixture:LC50 INHAL RAT 500 PPM/1HR.
Routes of Entry: Inhalation:YES Skin:NO Ingestion:NO
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:ACUTE: VAPORS VERY IRRITATING TO SKIN,
EYES AND MUCOUS MEMBRANES. CHRONIC: OVEREXPOSURE CAN CAUSE SYMPT

OMS

OF NONFIBROTIC LUNG INJURY.

Effects of Overexposure:EYE AND MUCOUS MEMBRANE IRRITATION.

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

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

First Aid:EYE: FLUSH WITH RUNNING WATER FOR AT LEAST 15 MINUTES. HOLD EYELIDS APART. SEEK IMMEDIATE MEDICAL TREATMENT. SKIN: RINSE WITH LARGE AMOUNTS OF RUNNING WATER. IF BURNS DEVELOP, SEEK MEDICAL TREATMENT. INHALATION : REMOVE TO FRESH AIR. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN AND SEEK MEDICAL TREATMENT. INGESTION: SEEK MEDICAL ATTENTION.

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

Flash Point:NONE

Extinguishing Media:DRY LITHIUM CHLORIDE, GRAPHITE POWDER, PYRENE G-1, LITH-X

Fire Fighting Procedures:COVER WITH DRY LITHIUM CHLORIDE OR LITH-X POWDER. DO NOT USE WATER, MOIST SAND, CARBON DIOXIDE OR SODA-ACID EXTINGUISHER. WEAR SCBA.

Unusual Fire/Explosion Hazard:

DO NOT SHORT CIRCUIT, RECHARGE, OVERDISCHARGE, PUNCTURE, CRUSH OR EXPOSE TO TEMPERATURES ABOVE 150C.

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

Spill Release Procedures:DO NOT BREATHE VAPORS OR TOUCH LIQUID WITH BARE HANDS.

Neutralizing Agent:SODA LIME

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

Handling and Storage Precautions:DO NOT SHORT CIRCUIT OR EXPOSE TO TEMPERATURES ABOVE 100C. DO NOT RECHARGE, OVERDISCHARGE, PUNCTURE OR CRUSH.

Other Precautions:DO NOT STORE BATTERIES IN HIGH HUMIDITY ENVIRONMENTS FOR LONG PERIODS.

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

Respiratory Protection:ACID GAS FILTER MASK (WHEN HANDLING BROKEN BATTERIES).

Ventilation:LOCAL EXHAUST.

Protective Gloves:BUTYL RUBBER GLOVES (WHEN HANDLING BROKEN BATTERIES).

Eye Protection:CHEMICAL WORKER SAFETY GLASSES

Other Protective Equipment:CHEMICAL LABORATORY SAFETY GLASSES AND CHEMICAL APRON.

Supple

mental Safety and Health
EACH BATTERY/CELL CONTAINS 0.205 GRAMS OF LITHIUM.

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

HCC:Z6
Boiling Pt:=77.2C, 171.F
Melt/Freeze Pt:=-105.C, -157.F
Decomp Temp:=150.C, 302.F
Vapor Pres:92
Vapor Density:4.1
Spec Gravity:1.63
Solubility in Water:DECOMPOSES
Appearance and Odor:1" DIA X 4.2" BATTERY. THIONYL CHLORIDE IS
COLORLESS TO PALE YELLOW; SHARP ODOR
Percent Volatiles by Volume:0

===== Stability and Reactivity Data

Stability Indicator/Materials to Avoid:YES
Stability Condition to Avoid:TEMPERATURES IN EXCESS OF 100C. HIGH
HUMIDITY FOR EXTENDED PERIODS OF TIME.
Hazardous Decomposition Products:SULFUR DIOXIDE, HYDROGEN CHLORIDE

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

Waste Disposal Methods:NEUTRALIZE SPILL WITH SODA LIME, SEAL LEAKING
BATTERY AND SODA LIME IN PLASTIC BAG AND DISPOSE OF AS HAZARDOUS
WASTE. DISPOSAL MUST BE IN ACCORDANCE WITH LOCAL,
STATE, AND FEDERAL
REGULATIONS.

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

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