



NO.2613020027

MATERIAL SAFETY DATA SHEET

Product Name: Lithium Thionyl Chloride Battery
ER34615M 3.6V 13000mAh

Revision Date: 2013-03-11

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Shanghai Research Institute of Chemical Industry Testing Centre
Shanghai Classification and Testing Centre of Dangerous
Chemicals for State Administration of Work Safety

Wuhan Voltec Energy Sources Co., Ltd.

SAFETY DATA SHEET

Lithium Thionyl Chloride Battery ER34615M 3.6V

SECTION1 PRODUCT AND COMPANY IDENTIFICATION

Product name: Lithium Thionyl Chloride Battery ER34615M 3.6V 13000mAh
 Company: Wuhan Voltec Energy Sources Co., Ltd.
 Address: No. 231, Xingsan Road, Hannan Economic Development Zone, Wuhan City, 430090, P. R. China
 Email: sunmoon@voltec-sunmoon.com
 Fax: 86-27-84662179
 Emergency Phone: 86-27-84732116
 SDS Number: 2613020027
 SDS Date: 2013-03-11

SECTION2 HAZARDS IDENTIFICATION

Hazards Identification:

Class 9, miscellaneous. The battery has passed the test items of UN Model Regulations, Manual of Test and Criteria Section UN 38.3.

Emergency Overview:

Caution: Avoid contact and inhalation the electrolyte contained inside the battery.

SECTION3 INFORMATION ON INGREDIENTS

Product name: Lithium Thionyl Chloride Battery ER34615M 3.6V 13000mAh

Ingredient	Concentration	CAS No.	EC No.
Thionyl dichloride	37.4%	7719-09-7	231-748-8
Lithium tetrachloroaluminate	6.7%	14024-11-4	237-850-9
Lithium	3.1%	7439-93-2	231-102-5

SECTION4 FIRST-AID MEASURES

Skin Exposure:

If the internal battery materials of an opened battery cell come into contact with the skin, immediately flush with plenty of water.

Eye Exposure:

In case of the internal battery materials in contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Inhalation Exposure:

If inhaled the internal materials of battery, remove immediately to fresh air and seek medical attention.

Oral Exposure:

If swallowed the internal materials of battery, do not induce vomiting. Seek immediate medical attention.

SECTION5 FIRE FIGHTING MEASURES

Extinguishing Media:

Suitable: Dry chemical, Sandy soil, Carbon dioxide or appropriate foam.

Firefighting:

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific hazards: Emit toxic fumes under fire conditions.

SECTION6 ACCIDENTAL RELEASE MEASURES

Procedure of Personal Precaution:

If batteries show signs of leaking, avoid skin or eye contact with the material leaking from the battery. Use chemical resistant rubber gloves and non-flammable absorbent materials for clean up. Mix with inert material (e.g. dry sand, vermiculite) and transfer to sealed container for disposal.

SECTION7 HANDLING AND STORAGE

Handling:

Keep away from ignition sources, heat and flame. Such batteries must be packed in inner packages in such a manner as to effectively prevent short circuits and to prevent movement which could lead to short circuits. Avoid mechanical or electrical abuse. More than a momentary short circuit will generally reduce the battery service life. Avoid reversing battery polarity within the battery assembly. In case of a battery unintentionally be crushed, rubber gloves must be used to handle all battery components. Avoid contact with eyes, skin. Avoid inhalation. No smoking at working site. Materials to Avoid: Strong oxidizing agents, Corrosives.

Storage:

Store in a cool, well-ventilated area. Keep away from ignition sources, heat and flame. Such batteries must be packed in inner packages in such a manner as to effectively prevent short circuits and to prevent movement which could lead to short circuits. Materials to Avoid: Strong oxidizing agents, Corrosives.

SECTION8 EXPOSURE CONTROL/PPE

Engineering Controls:

Use ventilation equipment if available. Safety shower and eye bath.

Personal Protective Equipment:

Respiratory System: Not necessary under conditions of normal use.

Eyes: Not necessary under conditions of normal use.

Clothing: Wear appropriate protective clothing.

Hand: Safety gloves.

Other Protect:

No smoking, drinking and eating at working site. Wash thoroughly after handling.

SECTION9 PHYSICAL/CHEMICAL PROPERTIES

Appearance: Multicolor cylinder plastics film shell
Odor: Odorless
Melting Point/°C: >300°C
Solubility: Partial soluble in water

SECTION10 STABILITY AND REACTIVITY**Stability:**

Stable under normal temperatures and pressures.

Conditions to Avoid:

Avoid exposure to heat and open flame. Avoid mechanical or electrical abuse. Prevent short circuits.
Prevent movement which could lead to short circuits.

Materials to Avoid:

Strong oxidizing agents, Corrosives.

Hazardous Polymerization:

Will not occur.

Hazardous Decomposition Products:

Metal oxides, CO, CO₂.

SECTION11 TOXICOLOGICAL INFORMATION**Toxicity Data:**

Not available.

Irritation Data:

The internal battery materials may cause irritation to eyes and skin.

SECTION12 ECOLOGICAL INFORMATION

No data available.

SECTION13 DISPOSAL CONSIDERATION**Appropriate Method of Disposal of Substance:**

Lithium batteries are best disposed of as a non-hazardous waste when fully or mostly discharged. Contact a licensed professional waste disposal service to dispose of large quantities materials.

SECTION14 TRANSPORT INFORMATION

RID/ADR: Proper Shipping Name: Lithium metal batteries (including lithium alloy batteries)
UN Number: UN3090
Hazard Class: 9
Packing Group: II

IATA: Proper Shipping Name: Lithium metal batteries (including lithium alloy batteries)
UN Number: UN3090
Hazard Class: 9
Packing Group: II

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IMO: Proper Shipping Name: Lithium metal batteries (including lithium alloy batteries)
UN Number: UN3090
Hazard Class: 9
Packing Group: II
EmS No. : F-A, S-I

SECTION15 REGULATORY INFORMATION

US DOT Effective December 29, 2004, the DOT requires that the outside of each package that contains primary lithium batteries, regardless of size or number of batteries, be labeled with the following statement: "PRIMARY LITHIUM BATTERIES-FOBIDDEN FOR TRANSPORT ABOARD PASSENGER AIRCRAFT". The labeling requirement covers shipments via highway, rail, vessel or cargo-only aircraft and covers all shipment inside, into or out of the US. The label must be in contrasting color and the letters must be 12mm (0.5 in) in height for packages weighing more than 30Kg and 6mm (0.25 in) in height for packages weighting less than 30 Kg.

SECTION16 OTHER INFORMATION

Date: 2013-03-11

Department: Shanghai Research Institute of Chemical Industry Testing Centre
Shanghai Classification and Testing Centre of Dangerous Chemicals for State Administration
of Work Safety
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