MSDS Report

Product Name	:	Rechargeable Li-ion Polymer battery
Model Name	:	B15169

Prepared for

LICO Technology Corporation

4F, NO.4, Lane95, An-Shin Rd., Hsintien, 23159 New Taibei, Taiwan.

Prepared by

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Report Number	:	UL42420151230UN039-4
Date of Report	:	2016.01.04
Date of Test	:	2015.12.30 ~ 2016.01.04

Notes:
The test results only relate to these samples which have been tested.
Partly using this report will not be admitted unless been allowed by Unilab.

Applicant :	LICO Technology Corporation
Manufacturer:	LICO Technology Corporation
Product Name	Rechargeable Li-ion Polymer battery
Brand Name:	/
Model Name	B15169
Date of Receipt:	2015.12.30
Test Standard:	GB/T 16483-2008
Test Result:	Refer to the following report
Date of Test:	2015.12.30 ~ 2016.01.04

Prepared by :

Reviewed by :

Approved by :

Material Safety Data Sheet

Section 1- Chemical Product and company Identification

Product Name: Rechargeable Li-ion Polymer battery
Battery Type: B15169
Manufacturer: LICO Technology Corporation
Address: 4F, NO.4, Lane95, An-Shin Rd., Hsintien, 23159 New Taibei, Taiwan.
Tel: +86-15801778677
Emergency Telephone: +86-15801778677
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E-mail:ycfu@lifuntech.com

Section 2 –Composition /Information on ingredient

Chemical Composition	CAS NO.	Weight (%)
Lithium Cobalt Oxide	12190-79-3	44-49
Graphite Power	7782-42-5	22-26
Organic solution	N/A	9-13
Polyethylene	9002-88-4	6-9
Copper	7440-50-8	4-7
Aluminium	7429-90-5	3-5
Plastic film	N/A	5-9

Section 3 – Hazards Identification

Health Hazards (Acute and Chronic)

These chemical are contained in a sealed can. Risk of exposure occurs only if the battery is mechanically or electricity abused. Contact of electrolyte and extruded lithium with skin and eyes should be avoided.

Sign/Symptoms of Exposure

A shorted lithium battery can cause thermal and chemical burns upon contact with the skin.

Section 4 – First Aid Measures

Eyes

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin

Remove contaminated clothes and rinse skin with plenty of water shower for 15 minutes. Get medical aid.

Inhalation

Remove from exposure and move to fresh air immediately. Use oxygen if available.

Ingestion

Give at least 2 glasses of milk or water. Induce vomiting unless patient is unconscious. Call a physical.

Section 5 – Fire Fighting Measures

Flash Point: N/A.

Auto-lgnition temperature: N/A.

Extinguishing Media

Dry chemical, CO_2

Special Fire –Fighting Procedures

Self-contained breathing apparatus.

Unusual Fire and Explosion Hazards

Cell may vent when subjected to excessive heat-exposing battery contents.

Hazardous Combustion Products

Carbon monoxide, carbon dioxide oxide fumes.

Section 6 – Accidental Release Measures

Steps to be taken in case Material is Released or Spilled

If the battery material is released, remove personnel from area until fumes dissipate. Provide maximum ventilation to clear out hazardous gases. Wipe it up with a cloth, and dispose of it in a plastic bag and put into a steel can. The preferred response is to leave the area and allow the batteries to cool and vapors. Remove spilled liquid with absorbent and incinerate.

Waste Disposal Method

It is recommended to discharge the battery to the end, handing in the abandoned batteries to related department unified, dispose of the batteries in accordance with approved local, state, and federal requirements. Consult state environmental protection agency and/or federal EPA.

Section 7 – Handing and Storage

The batteries should not be opened, destroyed or incinerate, since they may leak or rupture and release to the entertainment the ingredients that they contain in the hermetically sealed container. Do not short circuit terminals, or over charge the battery forced over-discharge, throw to fire. Do not crush or puncture the battery, or immerse in liquids.

Precautions to be taken in handing and storing

Avoid mechanical or electrical abuse. Storage preferably in cool, dry and ventilated area, which is subject to little temperature change. Storage at high temperatures should be avoided. Do not place the battery near heating equipment, nor expose to direct sunlight for long periods.

Other precautions

Batteries may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity.

Section 8 – Exposure Controls, Personnel Protection

Respiratory Protection

In case of battery venting, provide as much ventilation as possible. Avoid confined areas with venting batteries. Respiratory Protection is not necessary under conditions

of normal use.

Ventilation

Not necessary under conditions of normal use.

Protective Gloves

Not necessary under conditions of normal use.

Other Protective Clothing or Equipment

Not necessary under conditions of normal use.

Personal Protection is recommended for venting batteries: Respiratory Protection, Protective Gloves, Protective Clothing and safety glass with side shields.

Section 9 – Physical and Chemical Properties

Normal Voltage: 3.75V.

Rated Capacity: 5000mAh.

Appearance characters: white, quadrate, with odorless solid battery.

Section 10 – Stability and Reactivity

Stability

Stable.

Conditions to avoid

Heating, mechanical abuse and electrical abuse.

Hazardous Decomposition Products

N/A.

Hazardous polymerization

N/A.

If leaked, forbidden to contact with strong oxidizers, mineral acids, strong alkalis, halogenated hydrocarbons.

Section 11 – Toxicological Information

Inhalation, skin contact and eye contact are possible when the battery is opened. Exposure to internal contents, the corrosive fumes will be very irritating to skin, eyes and mucous membranes. Overexposure can cause symptoms of non-fibroid lung injury and membrane irritation.

Section 12 – Ecological Information

When promptly used or disposed the battery does not present environmental hazard. When disposed, keep away from water, rain and snow.

Section 13 – Disposal Considerations

APPROPRIATE THOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

If batteries are still fully charged or only partially discharged, they can be considered a reactive hazardous waste because of significant amount of not creation, or unconsumed lithium remaining in the spent battery. The batteries must be neutralized through an approved secondary treatment facility prior to disposal as a hazardous waste. Recycling of battery can be done in authorized facility, through licensed waste carrier.

Section 14 – Transport Information

IATA:	**Proper Shipping Name:** Lithium ion batteries/packed with equipment/contained in equipment
	UN Number:UN3480/UN3481
	Hazard Class: 9
	Packing Group: II
	The battery has passed the test items of UN Model Regulations, Manual of Tests and Criteria, Part III, sub-section 38.3. According to 2015 IATA Dangerous Goods Regulations 56th Edition, PACKING INSTRUCTION 965~967 of section II or IB for transportation.
IMO:	**Proper Shipping Name:** Lithium ion batteries/packed with equipment/contained in equipment
	UN Number:UN3480/UN3481
	Hazard Class: 9
	Packing Group: II
	The battery has passed the test items of UN Model Regulations, Manual of Tests and Criteria, Part III, sub-section 38.3. The goods is not restricted to IMO IMDG Code according to special provision 188.

Section 15 – Regulatory Information

Law information

《Dangerous Goods Regulation》
《Recommendations on the Transport of Dangerous Goods Model Regulations》
《Informational Maritime Dangerous Goods》
《Technical Instructions for the Safe Transport of Dangerous Goods》
《Classification and code of dangerous goods》
《Occupational Safety and Health Act》(OSHA)
《Toxic Substances Control Act》(TSCA)
《Consumer Product Safety Act》(CPSA)
《Federal Environmental Pollution Control Act》(FEPCA)
《The Oil Pollution Act》(OPA)
《Superfund Amendments and Reauthorization Act TitleⅢ(302/311/312/313) 》
SARA

《Resource Conservation and Recovery Act》(RCRA)
《safety drinking water act》(CWA)
《California Propositions 65》
《Code of Federal Regulations》(CFR)
In accordance with all Federal, State and Local laws.

Section 16 – Additional Information

The above information is based on the data of which we are aware and is believed to be correct as of the data hereof. Since this information may be applied under conditions beyond our control and with which may be unfamiliar and since data made available subsequent to the data hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

*** End of report***