

**** MATERIAL SAFETY DATA SHEET ****

快件声明物安全特性报告

MSDS Name (报告物名称) battery

Air Way Bill (运单号)

**** SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION ****

第一部分 化工产品及其发件单位

MSDS Name(报告物名称): battery

Catalog Numbers(化工品分类号): Lithium Polymer

Synonyms(又名): NO

Company Identification(发件公司名称): GMB CO., LTD

For information, call(一般联系电话): 020-84720852

For emergencies, call(应急联系电话): 020-84720852

**** SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS ****

成份特点

CAS#	Chemical Name	%	EINECS#
化学特性索引号码	化学名称	浓度	现存化学物质欧洲数据库号码
7439-93-2	LithiumPolymer	NO	NO

Hazard Symbols(危险特性):

The lithium-thionyl chloride batteries are not hazardous when used according to the recommendations of the manufacturer. But if the design of the circuit doesn't forecast all the necessary cares to prevent the inversion of polarity in the assembly of the battery or the battery at packs, there is the risk of dangers due to the explosion of the battery. Define with care the assembling process to assure that accidental short circuit don't happen.

Do not expose the batteries to temperatures above 100°C. If the battery lose its integrity and sealing, due to break or damages (mechanical, thermal or electrical), leakage, explosion or fire may follow. In this case there is the risk of release of chemical materials as defined in the paragraph 2 (active materials) of this safety sheet. Here below are shown the nature of special risks and the advices of caution.

Risk Phrases(危险条件):

R14/15 (reacts with water and yields flammable gases) R21 (harmful in contact with skin)
R22 (harmful if swallowed) R35 (causes severe burns) R41 (risk of serious damage to the eye)
R42/43 (may cause sensitisation by inhalation and skin contact)

**** SECTION 3 - HAZARDS IDENTIFICATION ****

危险特征

EMERGENCY OVERVIEW 概述

Eye 眼睛:NO

Skin 皮肤:NO

Ingestion 误食:NO

Inhalation 吸入:NO

Chronic 可否引起慢性疾病:NO

**** SECTION 4 - FIRST AID MEASURES ****

应急医疗救治

Eyes 眼睛:

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

Skin 皮肤:

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

Ingestion 误食:

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

Inhalation 吸入:

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

Notes to Physician

给内科医生的建议:NO

**** SECTION 5 - FIRE FIGHTING MEASURES ****

消防扑救方法

Extinguishing media: DO NOT USE WATER in case of battery leakage

Special hazards: irritating vapour

Special protective equipment: wear protective clothing, use self-contained breathing apparatus with filtered cartridge type ABEK

**** SECTION 6 - ACCIDENTAL RELEASE MEASURES ****

事故处理

General Information:

一般信息:

It is suggested to handle the batteries in a ventilated place,to don't smoke,eat or drink during assembling.in case of break ,all the people must go away from the place where the batteries leaks.

Spills/Leaks 泄露/溢出:

Broken batteries must be covered with sodium carbonate(Na_2CO_3)or dry sand,place them in approved container and dispose in accordance with local regulation.

**** SECTION 7 - HANDLING and STORAGE ****

处理和存放

Handling 处理:

-Do not recharge

-Do not use different types and brands of batteries or with different state charge

-Avoid short circuit

-Use desk of work electrically insulated

-Avoid to work over wet surface

-Use plastic calibre to valuate the dimensions of a lithium battery or to insulate the metallic surface of the battery

-Do not have rings on the fingers;otherwise wear insulating gloves

- Do not cut in the same time both the terminals of a battery: it could be a short circuit through the shears
 - Keep the batteries in non-conductive trays (i.e.plastic,wood or carton)
 - Do not solder directly on the battery
- Do not disassemble the batteries,do not throw them in the fire,do not hole ,do not overheat or plunge into water

Storage 存储:

- Store the lithium cells in a cool ,dry and ventilated area far from fires and heating sources
- It is recommended the use of a non-combustible srcture,keep adequate clearance between walls and batteries.
- The maximum temperature suggested for the storage is +30C
- Higher temperatures are allow but cause an increase in the self discharge of the battery and speed up the process of passivation
- in any case,never go over 100C,as the batteries can break and cause a leakage
- Arrange adequate protections to avoid possible hurts to the batteries
- Keep the batteries in their original packages till when they are used
- Do not expose the batteries directly to the sun light
- Do not put an higher number of cartons one on another(respect what indicated)
- If in the same place are storage batteries with a total capacity>50,000Ah,it is suggested to install an alarm for smoke and gas.

**** SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION **** 安全控制和人员保护

Engineering Controls 机械控制:

In case of battery venting ,provide as much ventilation as possible.Avoid confined areas with ventingbatteries.Respiratory protection is not necessary under conditions of normal use.

Personal Protective Equipment 个人防护

It is commended for venting batteries:Respiratory protection,Protective Gloves, Protective Clothing and safety glass with shields.

**** SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES ****

Physical State (物理状态) : NO	Color (颜色) : NO
Odor (味道) : NO	pH: NO
Vapor Pressure (蒸汽压力) : NO	Viscosity (黏度) : NO
Boiling Point (沸点) : NO	Freezing/Melting Point (冰点) : NO
Autoignition Temperature (自燃温度) : NO	Flash Point (闪点) : NO
Explosion Limits, lower (爆炸极限, 低) : NO	Explosion Limits, upper (爆炸极限, 高) : NO
Decomposition Temperature (分解温度) : NO	Solubility in water (溶解度) : NO
Specific Gravity/Density (特定浓度) : NO	Molecular Formula (分子式) : NO
Molecular Weight (分子量) : NO	

**** SECTION 10 - STABILITY AND REACTIVITY **** 稳定性和活性

Chemical Stability 化学稳定性:

Stable

Conditions to Avoid: 应避免的环境

Do not expose at temperature higher than 100C.

Avoid short circuit,crush,exposition to heat sources.

Do not disassemble the batteries or the battey packs,do not throw them in the fire,do not perforate them,do not overheat or wet them.

**** SECTION 11 - TOXICOLOGICAL INFORMATION ****

毒性信息

RTECS# (毒性数据号码) :

Inhaiation ,skin contact and eye contact are possible when the battery is opened.

Exposure to internal contenes,the corrosive fumes will be very irritation to skin,eyes and mucous membranes.Overexposure can cause symptoms of non-fibrotic injury and membrane irritation.

**** SECTION 12 - ECOLOGICAL INFORMATION ****

生态学信息

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 ****

销毁建议

For the disposal apply to specialized organization.

**** SECTION 14 - TRANSPORT INFORMATION ****

空运信息

GM lithium batteries are exempt from dangerous goods regulations and meet the exceptions of 49CFR part 173.185(b).They are considered non *dangerous goods by the international Civil Aviation Organization(ICAO) and the international Air Transport Association(IATA)because they meet all requirement of Special ProvisionA45.

Separate Lithium batteries when shipping to prevent short*circuiting.They should be packed in strong packaging for support during transport.

Each GMBcell or battery has been tested under provisions of the UN Manual and Criteria,Part III, sub*section 38.3.

Reported by: (报告人)

Company Name : GMB CO.,LTD

Date: 2009.10.09

公司名称: 日期:

Authorized Person: GMB

Signature:

报告人:

签名: