Material Safety Data Sheet

1. INFORMATION OF MANUFACTURER

Product name: Lithium-ion Battery Manufacturer's Name: ZHONGSHAN JINGYU ELECTRONICS CO.,LTD. Address: Fuqing 3 RD,Yongxing industrial zone,Hengdong village,Henglan Town, Zhongshan,Guangdong,China 528478 Tel:0760-88411217;Fax:0760-88411716 Contact Person: Eric Dou

Model: JY602030 Voltage:3.7V Capacity:300mAh

2. COMPOSITION / INFORMATION ON INGREDIENTS

The Lithium-ion battery is hermetically sealed; among its components, the following ones could potentially be hazardous upon release.

化学品名 Ingredient	分子式 Formula	含量 Percent of Content	CAS No. 化学 文摘登记号	OSHA (PEL)	ACGIH (TLV)
Lithium cobailt oxide钴酸锂	LiC ₀ O ₂	35 - 40 w/w	12190-79-3	N/A	N/A
Graphite 石墨	С	10 - 30 w/w	7782-42-5	N/A	N/A
Poly Vnylidene Fluoride (PVDF) 聚偏氟乙烯	(CH ₂ CF ₂) n	0.5 - 2 w/w	24937-79-9	N/A	N/A
Acetylene Black乙 炔碳	(C₂H₂) n	0.1 - 1 w/w	7440-44-0	N/A	N/A
Electrolyte 电解质(六氟磷酸锂、 EC、PC、DEC)	LiPF6 C3H4O3 C4H6O3 C3H10O3	1 - 10 w/w	105-58-B	N/A	N/A
Aluminum 铝	AI	9.5 – 11.5 w/w	7429-90-5	N/A	N/A
Copper 铜	Cu	9 - 11 w/w	7440-50-8	N/A	N/A
Polyamide 尼龙	(NHCO) n	0.5 - 2 w/w	63428-84-2	N/A	N/A
Polypropylene (PP) 聚丙烯	(C ₃ H ₆) _n	2 - 5 w/w	9003-07-0	N/A	N/A

Nickel 镍	Ni	0.5 - 1 w/w	7440-02-0	N/A	N/A			
Polyethylene (PE) 聚乙烯	(C2H4) n	0.1 - 1 w/w	9002-88-4	N/A	N/A			
Polyvinylchloride (PVC) 聚氯乙烯	(C₂H₃CI) ո	0.5 - 3 w/w	9002-86-2	N/A	N/A			
Tin 锡	Sn	0.5 - 2 w/w	7440-31-5	N/A	N/A			
ACGIH: 美国政府工业卫生协会 TLV: 美国政府工业卫生协会规定的污染排放物临界值								

3. HAZARDS IDENTIFICATION

Classification: Carcinogenic Category 3R40, Xn, sensitizing R43

Most important hazards: There's limited evidence of a carcinogenic effect. There are possible risks of irreversible effects. It may cause sensitization by skin contact.

Further information: The li-polymer battery is not hazardous when used according to recommendations. Under normal conditions of use, the integrity of the battery's package and security vent are maintained. The ingredients are not expected to pose a significant risk to man or the environment. The classification above is based on the contents being considered as a preparation in accordance with Directive 2001/58/CE.

4. FIRST AID MEASURES

General advice

Show this safety data sheet to the doctor in attendance.

The information below refers to exposure to the ingredients.

Inhalation

Immediate medical attention is required. Move to fresh air. If symptoms persist, call a physician.

Skin contact

Immediate medical attention is required. Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing before re-use. If skin irritation persists, call a physician.

Eye contact

Immediate medical attention is required. Remove contact lenses. Rinse immediately with plenty of water for at least 15 minutes.

Ingestion

Immediate medical attention is required. Gently wipe or rinse the inside of the mouth with water. Give small amounts of water to drink. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Centre immediately.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Foam dry powder, carbon dioxide (CO2), sand.

Extinguishing media which must not be used for safety reasons

Water, water spray **Specific hazards**

There's risk of receptacle bursting. Special protective equipment for firefighters

In the event of fire, wear self contained breathing apparatus. Wear personal protective equipment.

Hazardous decomposition products

When burned, hazardous products of combustion including fumes of carbon oxides, hvdrogen fluoride

6. ACCIDENTAL RELEASE MEASURES

The information below refers to exposure to the ingredients.

Personal precautions

Use personal protective equipment. Avoid contact with skin and eyes.

Environmental precautions

Prevent further leakage or spillage if safe to do so.

Do not allow material to contaminate ground water system.

To avoid risks to man and the environment, comply with the instructions for use.

Methods for cleaning up

Pick up and transfer to properly labeled containers. Dispose of in accordance with local regulations.

7. HANDLING AND STORAGE

Handling

Technical measures/Precautions

No special technical protective measures required.

Safe handling advice

Avoid contact with skin and eyes.

Use personal protective

equipment.

Follow the instructions for use issued by the producer.

Storage

Technical measures/Storage conditions

Keep in a dry, cool and well-ventilated place, preferably in the temperature range of +5 to $+25^{\circ}$ C at 65%(+-5%) relative humidity.

Keep away from heat and sources of ignition. Keep away from water.

Ensure battery terminals are protected during storage.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls Engineering measures Ensure adequate ventilation, especially in confined areas. Personal protective equipment Not required under normal use. *The information below refers to exposure to the ingredients.* Respiratory protection Effective dust mask. Hand protection Neoprene gloves (EN 374). Eye protection Safety glasses with side-shields conforming to EN166 Skin and body protection

Boots, apron, long sleeved clothing. **Hygiene measures** General industrial hygiene practice. **Environmental exposure controls** *The information below refers to exposure to the ingredients* Prevent product from entering drains. Do not allow material to contaminate ground water system.

9. PHYSICAL AND CHEMICAL PROPERTIES

General InformationForm battery (sealed unit)Color: silveryOdor: odorlessImportant Health Safety and Environmental InformationNot applicable

10. STABILITY AND REACTIVITY

Stability
Stable under normal conditions.
Hazardous polymerization
Hazardous polymerization does not occur.
Conditions to avoid
Keep away from heat and sources of ignition.
Materials to avoid
Exposure to moisture.
Hazardous decomposition products
Lithium compounds, carbon oxides, hydrogen fluoride

11. TOXICOLOGICAL INFORMATION

The information below refers to exposure to the ingredients.

Local effects

May cause eye/skin irritation. May cause irritation of respiratory tract.

Long term toxicity

No data available. Avoid repeated exposure.

Specific effects

May cause sensitization by inhalation and skin contact. Limited evidence of a carcinogenic effect.

12. ECOLOGICAL INFORMATION

If used as directed and if the integrity of the battery's package and security vent are maintained, the ingredients are not expected to pose a significant risk to the environment.

Mobility

No data available.

Persistence and degradability

Not readily biodegradable.

Eco-toxicity effects

No data available.

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products

Dispose of in accordance with local regulations. It must undergo special treatment, e.g. at suitable

disposal site, to comply with local regulations. It should not be released into the environment.
Contaminated packaging
Not applicable.
Further information
Never incinerate Li-Ion batteries.
Never dispose Li-Ion batteries as landfill.

14. TRANSPORT INFORMATION

According to the Packing Instruction 965~967 IATA DGR 56Edition for transportation, or the special provision 188 of IMDG, or the <<Recommendations On The Transport Of Dangerous Goods-Model Regulations>> (18).

More information concerning shipping, testing, marking and packaging can be obtained from Label master at http://www.labelmaster.com.

Separate Lithium-ion batteries when shipping to prevent short-circuiting. They should be packed in strong packaging for support during transport. Take in a cargo of them without falling, dropping, and breakage. Prevent collapse of cargo piles and wet by rain. **Transport Fashion:** By air, by sea, by railway, by road.

15. REGULATORY INFORMATION

Symbol T – Toxic Xn – Nocif Xi – Irritant

16. OTHER INFORMATION

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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