

Material Safety Data Sheet

UN No.: UN3480

Proper Shipping Name: Lithium Ion Batteries

Lithium ion batteries in compliance with Section IB of PI965

Product: A-037-004000SAA, 3.7V 4.0Ah 14.80Wh Li Polymer Battery

Date: June 30, 2016

No.: M2016063001

Company Name: Axiss Technology Corp.

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Contact person: Wu, Chu-Hsien

<p>The batteries referenced herein are exempt articles and are not subject to the OSHA Hazard Communication Standard requirement.</p>
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MSDS

Material Safety Data Sheets (**MSDS**) are a sub-requirement of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard, 29 CFR Subpart 1910.1200. This Hazard Communication Standard does not apply to various subcategories including anything defined by OSHA as an "article". OSHA has defined "article" as a manufactured item other than a fluid or particle; (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which under normal conditions of use does not release more than very small quantities, e.g. minute or trace amounts of a hazardous chemical, and does not pose a physical hazard or health risk to employees.

Because all of our batteries are defined as "articles", they are exempt from the requirements of the Hazard Communication Standard, hence a **MSDS** is not required.

Disposal Information

These batteries contain recyclable materials. Recycling options available in your local area should be considered when disposing of this product. Do not dispose of in fire

Composition / Information on Ingredients

Chemical Name	Molecular Formula	CAS No.	Weight Percentage % (about)
Lithium cobalt oxide	LiCoO ₂	12190-79-3	35
Carbon (such as graphite)	C	7440-44-0	17
Aluminum	Al	7429-90-5	24

Copper	Cu	7440-50-8	8
Organic carbonate	-	-	16

Transportation Information

For the international transport of lithium batteries, they must comply with these regulations:

The International Maritime Dangerous Goods (IMDG) Code by International Maritime Organization (IMO), Dangerous Goods Regulations (DGR) by International Air Transport Association (IATA) and Technical Instructions for the Safe Transport of Dangerous Goods by Air (TI) by International Civil Aviation Organization (ICAO). These regulations are based on the UN Recommendations on the Transport of Dangerous Goods, Manual or Tests and Criteria.

Lithium batteries which meet the requirements of UN38.3 (UN Manual of Tests and Criteria, Part III, subsection 38.3) could be transported by air and by sea as ordinary goods, otherwise should be transported according to Class 9, Packing Group II hazardous goods.

According to "Dangerous Goods Regulations" made by IATA, lithium batteries transport condition should accords with "Packing Instruction 965 Section II" (or "Packing Instruction 966 Section II, or Packing Instruction 967 Section II) or "Special Provision A88". They should be complied since 1 January 2009.

1. For lithium ion batteries, UN number is 3480. For lithium ion batteries contained in equipment of lithium ion batteries packed with equipment, UN number is 3481.
2. The consignment should be fully described by proper shipping name and packed, marked and in proper condition for carriage by air. The consignment is not classified as dangerous under the current edition of the IATA 57th Effective, Dangerous goods regulation and all applicable carrier and government regulations.
3. For transported by air, Lithium-ion Cells/Batteries shipped as "Not Restricted" Cargo: Must comply with Section II of PI 965~967 accordingly; for cells, the Watt-Hour Rating should not be more than 20Wh; for batteries, the Watt-Hour Rating should not be more than 100Wh. Watt-Hour Rating must be marked on the outside of the battery case (marked by manufacturer). (Except those manufactured before 1 January 2009, which may be transported without this marking until 31 December 2010.
4. Each consignment must be accompanied with a document such as an air waybill with an indication. For those Lithium ion cells/batteries contained in equipment, the equipment must be equipped with an effective means of preventing accidental activation. The telephone number for additional information for Axiss cells is +886-3-369-8818.
5. Quantity per package shall not exceed 10kg.
6. Each package must be capable of withstanding a 1.2m drop test in any orientation without damage of cells or batteries contained therein.
7. Lithium batteries which meet the requirements of A154 could be transported by air, and the batteries manufactured by Axiss meet these requirements. (A154 Lithium batteries identified by the manufacturer as being defective for safety reasons, or that have been damaged, that have the potential of producing a dangerous evolution of heat, fire or short circuit are forbidden for transport.)

8. Cells and batteries must be protected so as to prevent short circuit. This includes protection against contact with conductive materials within the same packaging that could lead to short circuit.

Regulatory Information

There is no regulation on lithium batteries management.

Measure for Electrolyte Leakage from the Battery

- Take up with absorbent cloth.
- Move the battery away from the fire.

First Aid Measures

- Eyes: Flush with water for at least 15 minutes. If irritation occurs and persists, contact a medical doctor.
- Skin: Remove contaminated clothing and thoroughly wash with soap and plenty of water. If irritation persists, contact a medical doctor.
- Inhalation: Remove to fresh air. If breathing difficulty or discomfort occurs and persists, see a medical doctor. If breathing has stopped, give artificial respiration and see a medical doctor IMMEDIATELY.

Fire Fighting Measure

- Hazardous Combustion Products: When burned, hazardous products of combustion including fumes of carbon monoxide, carbon dioxide, and fluorine can occur.
- Extinguishing Media: Water, carbon dioxide, dry chemical, or foam.
- Basic Fighting Procedures: Wear NIOSH/MSHA approved positive pressure self contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
- Unusual Fire & Explosion Hazards: this material does not represent an unusual fire or explosion hazard.
- Flash Point: 38°C (CC)(100F).
- Flammability Limits in Air, Lower, % by volume: 1.4
- Flammability Limits in Air, Upper, % by volume: 11

Accidental Release Measures

Procedure for Release and Spill:

- Sweep up and place in a suitable container, dispose or waste according to all local, state and Federal Law and Regulations.
- Before cleanup measures begin, review the entire MSDS with particular attention Potential Health Effects; and on Recommended Personal Protective equipment.

Exposure Controls/Person Protection

- Engineering controls: Investigate engineering techniques to reduce exposures use with adequate ventilation a Recommended personal protective Equipment.
- Eye/Face protection: Use good industrial practice to avoid eye contact, Processing of this product releases vapors or fumes which may cause eye irritation. Where eye contact may be likely wear chemical goggles and have eye flushing equipment available.

- Skin protection: Minimize skin contamination by following good industrial hygiene practices Wearing protective gloves is recommended Wash hands and contaminated skin thoroughly after handling.
- Respiratory protection: Avoid breathing dust and processing vapors When adequate ventilation is not available wear a NIOSH/MSHA respirator approved for protection against inorganic dusts.
- Special clothing: Robber gloves.
- Other: Quick-drench eye wash and safety shower.

Other Information

This information is not effective to all the batteries manufactured by Axiss. This information comes from reliable sources, but no warranty is made to the completeness and accuracy of information contained. Axiss doesn't assume responsibility for any damage or loss because of misuse of batteries. Users should grasp the correct use method and be responsible for the use of batteries.

IDENTITY

UN No.:	UN3480
Proper Shipping Name:	Lithium ion batteries
	Lithium ion batteries in compliance with Section IB of PI965
Model Name:	A-037-004000SAA, Li Polymer Battery
Nominal Voltage/Capacity:	3.7V / 4.0Ah
Watt-Hour Rating	14.80Wh



Signature of Supplier's Representative

Wu, Chu-Hsien / Manager

Typed Name and Title

June 30, 2016

Date

Taoyuan, Taiwan

Place