



新普科技股份有限公司
新世電子(常熟)有限公司
新普科技(重慶)有限公司
華普電子(常熟)有限公司
Simplo Technology Co., Ltd.
Simplo Technology(Changshu)Inc.
Simplo Technology(Chongqing)Inc.
Huapu Technology(Changshu)Inc.

MATERIAL SAFETY DATA SHEET

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1. Product and Company Identification

Product Identification : Rechargeable Li-Polymer Battery Pack/4S1P

Model Name: AP21A7T

Customer P/N : KT.00407.011

SMP P/N : 934QA023H/934QA023HB

Rating: 15.4V---TYP 5845mAh/90Wh

Rated 5675mAh/87.39Wh

Manufacturer :

SIMPLO TECHNOLOGY CO., LTD.

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2. Hazards Identification

The product is not classified for GHS. The batteries are defined as "articles" they are exempt from the requirements of the Hazard Communication Standard.

Primary routes of entry : Skin contact, Skin absorption; Eye contact, Inhalation and ingestion: No

Symptoms of exposure : Skin contact, No effect under routine handling and use.

Skin absorption : No effect under routine handling and use.

Eye contact : No effect under routine handling and use.

Inhalation : No effect under routine handling and use.

Reported as carcinogen : Not applicable

Major hazards: If the battery positive and negative contact with other metals heat or electrolytic leakage may occur the electrolyte is flammable such as electrolytic leakage should be immediately away from the fire source According to the OSHA Hazard Communication Standard (29 CFR 1910.1200) this product is not classified as hazardous °

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3. Composition / Identification on Ingredients

Substance : Lithium Ion Battery

Composition :

CAS Number: Not specified (3-1 and 3-2)

3-1. Cases: Plastic Material

Not dangerous

3-2. Printed Circuit Board Assembly

Not dangerous

3-3. Lithium Ion Cell :

Hazardous Ingredients	%	CAS Number
Graphite	7-25	7782-42-5
Lithium cobalt	15-40	12190-79-3
Lithium Nickel Cobalt Manganese Oxide	5-40	182442-95-1
Lithium Hexafluorophosphate	0-5	21324-40-3
Acetylene Black	0-2	1333-86-4
Diethyl Carbonate	0-15	105-58-8
Dimethyl Carbonate	0-15	616-38-6
Ethyl Methyl Carbonate	0-15	623-53-0
Propylene Carbonate	0-15	108-32-7
Ethylene Carbonate	0-15	96-49-1

4. First Aid Measures

Batteries do not present a health hazard under normal use and handling. First-aid measures in the event of exposure to internal cell contents are:

Inhalation : Remove to fresh air immediately. If breathing is difficult, seek emergency medical attention.

Skin contact : May cause skin irritation , Remove contaminated clothes and shoes immediately. Wash extraneous matter or contact region with soap and plenty of water immediately.

Eye contact : May cause eye irritation , Do not rub one's eyes. Immediately flush eyes with water continuously for at least 15 minutes. Seek medical attention immediately.

Ingestion : Ingestion of battery chemicals can be harmful, Make the victim vomit. When it is impossible or the feeling is not well after vomiting, seek medical attention.

5. Fire Fighting Measures

Extinguishing Media : Use suitable extinguishing media.

Firefighting Equipment : Use NIOSH/MSHA approved full-face self-contained breathing apparatus (SCBA) with full protective gear.

6. Accidental Release Measures

On Land : Place material into suitable containers and call local fire/police department.

In Water : If possible, Remove from water and call local fire/police department.

7. Handling and Storage

Handling :

Do not expose the battery to excessive physical shock or vibration. Short-circuiting should be avoided. However, accidental short-circuiting for a few seconds will not seriously affect the battery. Prolonged short circuits will cause the battery to rapidly lose energy, could generate enough heat to burn skin. Sources of short circuits include jumbled batteries in bulk containers, coins, metal jewelry, metal covered tables, or metal belts used for

assembly of batteries in devices. To minimize risk of short-circuiting, the protective case supplied with the battery should be used to cover the terminals when transporting or storing the battery. Do not disassemble or deform the battery. Should an individual cell within a battery become ruptured, do not allow contact with water.

Storage :

The lithium ion battery should be between 25% and 75% of full charge when stored for a long period of time. Store in a cool, dry, well ventilated area. And temperature above 100 Celsius degree can result in loss of battery performance, leakage, or rust. Do not expose the battery to open flames.

8. Exposure Controls / Personal Protection

Engineering Controls : Keep away from heat and open flame. Store in a cool dry place

Personal Protection :

Respirator : Not required during normal operations. SCBA required in the event of a fire.

Eye/Face Protection : Not required beyond safety practices of employer.

Gloves : Not required for handling of battery.

Foot Protection : Steel toed shoes recommended for large container handling.

9. Physical and Chemical Properties

State	Solid
Odor	N/A
PH	N/A
Vapor pressure	N/A
Vapor density	N/A
Boiling point	N/A
Solubility in water	Insoluble
Specific gravity	N/A
Density	N/A

10. Stability and Reactivity

Reactivity : None during normal handling and use

Incompatibilities : None during normal handling and use

Hazardous Decomposition Products : None during normal handling and use

Conditions to Avoid : The battery pack and enclosed cells should not be opened, disassembled, crushed, burned, or exposed to high temperatures.

11. Toxicological Information

This product does not elicit toxicological properties during routine handling and use.

12. Ecological Information

Lithium ion battery pack can be disposable in accordance with appropriate federal, state and local regulations.

13. Disposal Consideration

Recommended methods for safe and environmentally preferred disposal:

Product(waste from residues)

Do not throw out a used battery cell. Recycle it through the recycling company.

Contaminated packaging

Neither a container nor packing is contaminated during normal use. When internal materials leaked from a battery cell contaminates, dispose as industrial wastes subject to special control.

14. Transport Information

Lithium ion batteries containing no more than 1.5g/cell and 8g/battery pack and also power is no more than 20Wh/cell and 100Wh/battery pack of lithium can be treated as "Non-dangerous goods" under the United Nations Recommendations on the Transport of Dangerous Goods, Special Provision 188, provided that packaging is strong and prevent the products from short-circuit.

With regard to air transport, the following regulations are cited and considered:

- The International Civil Aviation Organization (ICAO) Technical instructions(2021-2022 Edition)
- The International Air Transport Association(IATA) Dangerous Goods Regulations(63rd Edition,2022) Packing instruction 965 Section IB or II for Lithium Ion battery.
- The International Maritime Dangerous Goods(IMDG) Code 2020 Edition(Amendment 40-20), Special Provision 188.
- US Hazardous Materials Regulations 49 CFR(Code of Federal Regulations)Sections 173-185 Lithium batteries and cells.
- The UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria 38.3 Lithium batteries, ST-SG-AC10-11-Rev7-Amend1 (UN3480).

UN regulation

- UN 3480, Batteries only, IATA Dangerous Goods Regulations, packing instruction 965 is applied.
- UN 3481, Lithium ion batteries packed with equipment, IATA Dangerous Goods Regulations, packing instruction 966 is applied.
- UN 3481, Lithium ion batteries contained in equipment, IATA Dangerous Goods Regulations, packing instruction 967 is applied.

Our products are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to all the applicable international and national governmental regulations, not limited to the above mentioned. We further certify that the enclosed products have been tested and fulfilled the requirements and conditions in accordance with UN Recommendations 38.3(T1 – T8) on the Transport of Dangerous Goods Model Regulations and the Manual of Testes and Criterion .that can be as “Non-hazardous Goods.”

Lithium ion batteries only transport by air in accordance with PI965 at a state of charge(SOC) not to exceed 30 percent of rated design capacity.

Test results of the UN Recommendation on the Transport of Dangerous Goods

Manual of Test and Criteria (38.3 Lithium battery)			
No	Test item	Test Results	Remark
T1	Altitude Simulation	Pass	
T2	Thermal Test	Pass	
T3	Vibration	Pass	
T4	Shock	Pass	
T5	External Short Circuit	Pass	
T6	Impact/Crush	Pass	
T7	Overcharge	Pass	
T8	Forced Discharge	Pass	

15. Regulatory Information



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OSHA Hazard communication standard (29 CFR 1910.1200)

_____ Hazardous V Non-hazardous

16. Other Information

The information contained herein is furnished without warranty of any kind, Users should consider this data only as a supplement to other information gathered by them and must make independent determinations of the suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers.

