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 :

Lithium-Ion Rechargeable Battery Pack /3S1P Model Name : B31N1637(X510)

Customer P/N : 0B200-02590000 Simplo P/N : 906T/Q2243H Rating : 43Wh

Manufacturer :

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2. Hazards Identification

According to the OSHA Hazard Communication Standard (29 CFR 1910.1200) this product is not classified as hazardous

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

3. Composition / Identification on Ingredients

Substance : Lithium Ion Battery

CAS number : Reference 3-3

UN Class : Even classified as lithium batteries, they are exempted from dangerous goods. UN-Recommendations on the Transport of Dangerous Goods Model Regulations.

* Lithium ion cells and batteries may be offered for transport if they meet the following :
* For cells, the Watt-hour rating should not be more than 20 Wh;
* For batteries, the Watt-hour rating should not be more than 100 Wh. The Watt-hour rating must be marked on the outside of the battery case .
* Each cell or battery of the type proved to meet the requirements of each test in the UN manual of tests and criteria, Part III, subsection 38.3.
* General requirements and additional requirements, Please see Section II or IB of Packing Instruction 965, 966, 967 accordingly or UN 3480 , UN3481.

Composition :

3-1. Cases: Plastic Not dangerous
3-2. Printed Circuit Board Assembly Not dangerous
3-3. Lithium Ion Cell :

Hazardous Ingredients	%	CAS Number
Cobalt oxide	< 30 %	1307-96-6
Manganese dioxide	< 30 %	1313-13-9
Nickel oxide	< 30 %	1313-99-1
Carbon	< 30 %	7440-44-0
Electrolyte (*)	< 20 %	616-38-6
Polyvinylidene fluoride (PVdF)	< 10 %	24937-79-9
Aluminium foil	2 - 10 %	7429-90-5
Copper foil	2 - 10 %	7440-50-8
Aluminiumand inert materials	5 - 10 %	7429-90-5

4. First Aid Measures

Inhalation : Make the victim blow his/her nose, gargle. Seek medical attention if necessary.

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

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

Ingestion : 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

Incompatibilities : None during normal operation. Avoid exposure to heat, open flame, and corrosives.
Conditions to Avoid : Avoid exposure to heat and open flame. Do not puncture, crush or incinerate.

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

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

- UN No. 3480
- UN proper shipping name: Lithium Ion Batteries.

- Transport hazard class : 9
- The International Civil Aviation Organization (ICAO) Technical Instructions, Packing Instruction 965, Section IB orII
- The International Air Transport Association (IATA) Dangerous Goods Regulations(58th Edition, 2017), Packing Instruction 965, Section IB orII
- The International Maritime Dangerous Goods (IMDG) Code [Special provision 188, 230]
- 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, Revision 3, Amendment 1 or any subsequent revision and amendment applicable at the date of the type

If those lithium-ion batteries are packed with or contained in an equipment, then it is the responsibility of the shipper to ensure that the consignment are packed in compliance to the latest edition of the IATA Dangerous Goods Regulations(58th Edition, 2017) section II of either Packing Instruction 966 or 967 in order for that consignment to be declared as NOT RESTRICTED (non-hazardous/non-Dangerous). If those lithium-ion batteries are packed with or contained in an equipment, UN No. is UN3481

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 (T1 – T8) on the Transport of Dangerous Goods Model Regulations and the Manual of Testes and Criteria.

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

Manual of Test and Criteria (38.3 Lithium battery)		**Test Results**	**Remark**
No	Test item		
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

Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria (ST/SG/AC.10/11/Rev.5)
OSHA Hazard communication standard (29 CFR 1910.1200)

_____Hazardous _____V_____Non-hazardous

16. Other Information

The information contained in this Safety data sheet is based on the present state of knowledge and current legislation.

This safety data sheet provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications.

Chemical substances information: Japan Advanced Information center of Safety and Health International Chemical Safety Cards (ICSCs):

International Occupational Safety and Health Information Centre (CIS)
1999 TLVs and BEIs: American Conference of Governmental Industrial Hygienists (ACGIH) Wastes Disposal and Public Cleaning Law [Japan]
Law for Promotion of Effective Utilization of resources [Japan]