

1. Product and company identification

1.1. Product Information:

Product Name: Lithium Ion Rechargeable Battery Pack
Customer P/N: 880/196
Model No. FEL-BC00VTC66H-1001
Cell No. Murata US18650VTC6
Rating 36V, 3.0Ah, 108Wh

Company Identification:

Company Name: SkyPower Enterprise Co., Ltd.

Address: 28F, No. 289, Sec. 2
Wen Hua Rd., Ban-Ciao District
New Taipei City, Taiwan
zip code: 220

Tel: 886-2-2258-2986 Fax: 886-2-2258-2996
[http: www.skypowerteck.com](http://www.skypowerteck.com)

1.2. Manufacturer Information:

Address: 3F, No. 248-30, Xincheng Rd.
Qianzhen Dist, Kaohsiung City 806
Taiwan

Tel: 886-7-841-3828 Fax: 886-7-841-8528

2. Hazards Identification

- Health Hazard Effect:
The battery pack interior airtight chemical substance, if the artificial/machinery/electron improper use destroys, causes the chemical substance outside or the gas leaks causes the skin/eye damage and explodes.
- Environment Influence:
Since a battery cell remains in the environment, do not throw out it into the environment.
- Physics/Chemical damage: -----
- Special damage: -----
- Cardinal Condition:
Disgusting, vomit, the stupor, the skin fever scalds, the position feeling barrier.
- Article damage classification: -----

3. Composition / Information on Ingredients

Hazardous Ingredient

Chemical Name	CAS NO.	Concentration / Concentration range
Lithium Nickel Cobalt Aluminum Oxides	131344-56-4	25-40%
Graphite	7782-42-5	10-20%
1,1-Difluoroethylene polymer	24937-79-9	0.1-2%
Ethylene Carbonate	96-49-1	0.1-5%
Dimethyl Carbonate	616-38-6	1-10%
Phosphate(1-), hexafluoro-, Lithium	21324-40-3	0.1-5%
Polyethylene	9002-88-4	0.1-5%
Aluminum	7429-90-5	1-10%
Copper	7440-50-8	5-20%
Iron	7439-89-6	5-20%

Lithium equivalent content	8.1[g] for battery pack
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4. First-Aid Measures

The product contains organic electrolyte. In case of electrolyte leakage from the battery, actions described below are required.

- **Eye contact :** Flush the eyes with plenty of clean water for at least 15 minutes immediately, without rubbing, and call a doctor. If appropriate procedures are not taken, this may cause an eye irritation.
- **Skin contact :** Wash the contact areas off immediately with plenty of water and soap. If appropriate procedures are not taken, this may cause sores on the skin.
- **Inhalation :** Remove to fresh air immediately, and call a doctor.

5. Fire Fighting Measures

- Use specified extinguishers (gas, foam, powder) and extinguishing system under the Fire Defense Law.
- Since corrosive gas may be produced at the time of fire extinguishing, use an air inhalator when danger is predicted.
- Use a large amount of water as a supportive measure in order to get cooling effect if needed. (Indoor/outdoor fire hydrant)
- Carry away flammable materials immediately in case of fire.
- Move batteries to a safer place immediately in case of fire.

6. Accidental Release Measures

- Wipe off with dry cloth
- Keep away from fire
- Wear safety goggles, safety gloves as needed

7. Precautions for safe handling and use

- Handling :
Do not disassemble, remodel, or solder. Do not short + and - terminals with a metal. Do not open the battery.
- Storage :
Store within the recommended limit of -20°C to 45°C (-4°F to 113°F), well-ventilated area. Do not expose to high temperature (60°C/140°F). Since short circuit can cause burn hazard or safety vent to open, do not store with metal jewelry, metal covered tables, or metal belt
- Charging:
Charge within the limits of 0°C to 45°C (32°F to 113°F) temperature.
Charge with specified charger designed for this battery.
- Discharging:
Discharge within the limits of -20°C to 60°C (-4 °F to 140°F) temperature.
- Disposal:
Dispose in accordance with applicable federal, state and local regulations.
- Caution:
Fire, Explosion, and Severe Burn Hazard. Do not Crush, Disassemble, Heat Above 100°C/212°F, or Incinerate.

8. Exposure Controls/Personal Protection (In case electrolyte is leaked from battery)

- Engineering controls: ---

Control parameter		
Common chemical name/General name	TLV-TWA	BEI
Lithium Cobaltic (LiCoO ₂)	0.02mg/ m ³ (as cobalt)	-
Aluminum	10mg/ m ³ (metal coarse particulate) 5mg/ m ³ (flammable powder) 5mg/ m ³ (weld fume)	-
Carbon (Natural graphite) (Artificial graphite)	2mg/ m ³ (inhalant coarse particulate)	-
Copper	0.2mg/ m ³ (fume) 1.0mg/ m ³ (a coarse particulate , mist)	-
Organic electrolyte	-	-

9. Physical and Chemical Properties

Physical state	Solid	Solubility in water	/
Cell Color	Metallic color	Explosion limit	/
Odor	Odorless	Auto flammability	/
Flashpoint	/	Melting Point	LiCoO ₂ about 1130 C
Boiling Point	/	Freezing Point	/

10. Stability and Reactivity

External short-circuit, deformation by crush, high temperature (over 100°C) exposure of a battery cause generation of heat and ignition.

11. Toxicological Information

Under normal conditions of use, the battery is toxicological sealed. So void to open and damage battery directly.

12. Ecological Information

If the battery is scrapped, it should be selected and disposed by professional company.

13. Disposal Considerations

Do not dispose of battery into environment or sewerage. It should be recycled and disposed basing on your local legislation and regulations.

14. Transportation Information

The rechargeable lithium ion battery pack meet all requirements under UN Manual of and Criteria, Part III, subsection 38.3

Air Transport (IATA)

- UN3480- Lithium ion batteries according to packing instructions 965 – Section IA
- UN3481- Lithium ion batteries according to packing instructions 966 – Section I
- UN3481- Lithium ion batteries according to packing instructions 967 – Section I

Road Transport (ADR)

- UN3480 – Lithium ion batteries according to packing instructions P903
- UN3481 – Lithium ion batteries packed with equipment according to packing instructions P903
- UN3481 – Lithium ion batteries contained inn equipment according to packing instructions P903

Sea Transport (IMDG Code)

- UN3480 – Lithium ion batteries according to packing instructions P903
- UN3481 – Lithium ion batteries packed with equipment according to packing instructions P903
- UN3481 – Lithium ion batteries contained inn equipment according to packing instructions P903

15. Regulatory Information

(ACGIH)
(OSHA)
European Union (UN)
(ISO)

16. Other Information

- Reference: MURATA LI-ION CELL BATTERY SDS
- Made by: SkyPower Enterprise Co., Ltd.
3F, No. 248-30, Xincheng Rd., Qianzhen Dist,
Kaohsiung City 806, Taiwan

Tel: 886-7-841-3828

Note: The reference data provide from supplier.