

## 1. Product and company identification

### 1.1. Product Information:

Product Name: Lithium Ion Rechargeable Battery Pack  
Customer P/N: 880/197  
Model No. FEL-BC00VTC66H-1002  
Cell No. Murata US18650VTC6  
Rating: 3.6V, 6.0Ah, 216Wh

### 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>

### 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	16.2[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: ---

Common chemical name/General name	Control parameter	
	TLV-TWA	BEI
Lithium Cobaltic (LiCoO <sub>2</sub> )	0.02mg/ m <sup>3</sup> (as cobalt)	-
Aluminum	10mg/ m <sup>3</sup> (metal coarse particulate) 5mg/ m <sup>3</sup> (inflammable powder) 5mg/ m <sup>3</sup> (weld fume)	-
Carbon (Natural graphite) (Artificial graphite)	2mg/ m <sup>3</sup> (inhalant coarse particulate)	-
Copper	0.2mg/ m <sup>3</sup> (fume) 1.0mg/ m <sup>3</sup> (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 <sub>2</sub> 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 instruction 965 – Sections II and IA
- UN3481 – Lithium ion batteries packed with equipment according to packing instruction 966 –Section II
- UN3481 – Lithium ion batteries contained inn equipment according to packing instruction 967 –Section II

Road Transport (ADR)

- UN3480 – Lithium ion batteries according to special provision 188
- UN3481 – Lithium ion batteries packed with equipment according to special provision 188
- UN3481 – Lithium ion batteries contained inn equipment according to special provision 188

Sea Transport (IMDG Code)

- UN3480 – Lithium ion batteries according to special provision 188
- UN3481 – Lithium ion batteries packed with equipment according to special provision 188
- UN3481 – Lithium ion batteries contained inn equipment according to special provision 188

## 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.