SECTION 1. CHEMICIAL PRODUCT AND COMPANY NAME

Safety Data Sheet

Lithium-Ion Rechargeable Battery Pack
BL4080F

Complies with the OSHA Hazard Communication Standard:
29 CFR 1910 1200

Makita U.S.A., Inc.
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Emergency Contact Information

Telephone Number for Information: MAKITA: 1-510-657-9881
Emergency Response

For Chemical Emergency
Spills, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night
Within USA and Canada 1-800-424-9300

Section 2. Hazard Identification

Class Name: Not applicable for regulated class

Hazard: If battery terminals are in contact with other metals, it may cause heat generation or electrolyte leakage. Electrolyte is flammable. In case of electrolyte leakage, move battery from fire immediately.

Toxicity: Vapor generated from burning batteries may cause eyes, skin and throat irritation.

Section 3. Composition/ Information on Ingredients

IMPORTANT NOTE:
The battery pack uses twenty US21700VTC6AM lithium-ion rechargeable cell and control circuit on the PWB.
The battery pack should not be opened or burned since the following ingredients contained within the cell could be harmful if exposed or misused.
The cell does not contain metallic lithium or lithium alloy.

Common Chemical Name / General Name	CAS Number	Concentration / Concentration Range
Lithium Nickel Cobalt Oxides	113066-89-0	36%
Graphite	7782-42-5	12%
Ethylene Carbonate	623-53-0	1%
Dimethyl Carbonate	616-38-6	6%
Lithium Hexafluorophosphate	21324-40-3	2%
Aluminium	7429-90-5	5%
Copper	7440-50-8	24%
Iron	7439-89-6	14%

Enclosure:	PC
UN number (Class):	UN3480 (Class 9)
UN Packing Group:	II
Watt-hour rating:	288 Wh for battery pack

Section 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 eyes immediately with plenty of clean water for at least 15 minutes, without rubbing. Seek medical advice. If appropriate procedures are not taken, this may cause eye irritation.
Skin Contact:	Wash the affected areas off immediately with plenty of water and soap. If appropriate procedures are not taken, this may cause sores on the skin.
Inhalation:	Move to a well-ventilated area immediately. Seek medical advice.

Section 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 to create a cooling effect if needed. (Indoor/outdoor fire hydrant)
- Remove flammable materials immediately in case of fire.
- Move batteries to a safe place immediately in case of fire.

Section 6. Accidental Release Measures

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

Section 7. Precautions for Safe Handling and Use

Storage:	Store within the recommended limit of -30°C to 45°C (-22°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.
Handling:	Do not disassemble, remodel, or solder. Do not short + and - terminals with a metal. Do not open the battery pack.
Charging:	Charge within the limits of -10°C to 55°C (14°F to 131°F) temperature. Charge with specified charger designed for this battery pack.
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:	Do not incinerate. Do not disassemble.
	Do not expose to high temperatures (140°F / 60°C).
	Do not impact, pierce or crush the battery. Use specified charger only.
	Dispose of properly.

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

Acceptable Concentration:	Not specified in ACGIH.
Facilities:	Provide appropriate ventilation such as a local ventilation system in the storage area.
Protective Clothing:	Gas masks for organic gases, safety goggles, safety gloves.

Section 9. Physical and Chemical Properties

Appearance:	Lithium-ion rechargeable cells are set in a resin case.
Average Operating Voltage:	36.0 V

Section 10. Stability and Reactivity

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

Section 11. Toxicological Information

Acute Toxicity:	No information as a battery
Local Effects:	No information as a battery

Section 12. Ecological Information

When an exhausted battery is buried in the ground, corrosion may occur on the outer case and cause electrolyte leakage. There is no information on environmental influence.

Section 13. Disposal Considerations

When battery is disposed, isolate positive (+) and negative (-) terminals of the battery to avoid those terminals from touching each other. Batteries may be short-circuited when piled up or mixed with other batteries.
Dispose in accordance with applicable federal, state and local regulations.

Section 14. Transport Information

・When batteries are transported by ship, vehicle or railroad, avoid high temperature and condensation.
・Avoid transportation which may damage package.

Lithium-ion batteries, the Watt-hour rating is more than 100Wh, are subject to dangerous goods regulation for the purpose of transportation by the U.S. Department of Transportation (DOT), the International Civil Aviation Organization (ICAO), the International Air Transport Association (IATA) or the International Maritime Dangerous Goods regulations (IMDG). With regard to air transport, the International Civil Aviation Organization (ICAO) Packing Instruction 965 Section I complies with the Recommendation as is; further, the International Air Transport Association (IATA) adopts ICAO Packing Instruction 965 Section I. In addition, the regulations of the US Department of Transportation for land, sea and air transportation are based on the UN Recommendations.

IATA (International Air Transport Association): Dangerous Goods Regulation
Packing Instruction 965 (Lithium-ion or lithium polymer cells and batteries without electronic equipment)
With effect April 1, 2016: Lithium-ion cells and batteries must be offered for transport at a state of charge not exceeding 30 percent of their rated capacity. UN 3480, PI 965, Section IA and IB will be restricted to carriage on cargo aircraft. All packages must contain the Cargo Aircraft Only label and Class 9 Label in addition to other marks and labels required by the Regulations.
The shipment complies with the Packing Instruction 965 Section IA under IATA.
Each cell and battery is of the type proven to meet the requirements of each test in the UN Manual of Tests and Criteria, Part III, subsection 38.3.
The completed package for the cells or batteries meet the Packing Group II performance standards.
Even classified as lithium batteries packed with equipment (UN3481), IATA Dangerous Goods Regulations packing instruction 966 is applied.
Even classified as lithium batteries installed in equipment (UN3481), IATA Dangerous Goods Regulations packing instruction 967 is applied.

Section 15. Regulatory Information

・**IMDG Code:**	International Maritime Dangerous Goods (IMDG) Code 2020 Edition
・**ICAO TI:**	International Civil Aviation Organization (ICAO) Technical Instructions for the Safe Transport of Dangerous Goods by Air 2023-2024 Edition
・**IATA DGR:**	International Air Transport Association (IATA) Dangerous Goods Regulations 64th Edition

Section 16. Other Information

The information contained within is provided for your information only. The information and recommendations set forth herein are made in good faith and are believed to be accurate as of the date revised. However, Makita U.S.A, Inc. MAKES NO WARRANTY, EITHER EXPRESSED OR IMPLIED, WITH RESPECT TO THIS INFORMATION AND DISCLAIMS ALL LIABILITY FROM RELIANCE ON IT.