



Product Data Sheet Rose Electronics # EPG-1139(x)

The products referenced herein are "articles" under 29 CFR 1910.1200(c) and are not subject to OSHA's requirements for material safety data sheets under its Hazard Communication Standard, 29 CFR 1910.1200. This Product Data Sheet is provided as a service to our customers.

Section I: Company Information:

Identity: Lithium Ion Batteries

Models: EPG-1139x

WH Rating: 8.82Wh

Date: 1/17/13

Manufacturer:

Rose Electronics Distributing Company, Inc.

2030 Ringwood Avenue

San Jose, CA 95131

Phone: 1-408-943-0200

Section II: Composition Information:

Rose Electronics EPG-1139x contains 1S1P Panasonic CGR18650EA

<u>Component:</u>	<u>Material:</u>	<u>Formula</u>
Positive Electrode	Lithium Cobalt Oxide	LiCoO ₂
Negative Electrode	Graphite	C
Electrolyte	Ethylene Carbonate-Solvent	C ₃ H ₄ O ₃
	Diethyl Carbonate-Solvent	C ₅ H ₁₀ O ₃
	Lithium Hexafluorophosphate-Salt	LiPF ₆

Section III: Hazards Information

Potentially hazardous materials are fully contained in a hermetically sealed case designed to withstand normal handling and use. Exposure could occur only if the battery or cells have been opened, disassembled, crushed, burned, exposed to high temperatures (> 60° C or 140° F), or subjected to other types of abuse. Exposure to cell contents may be harmful under some circumstances. Follow instructions and precautions for safe use of the battery pack.

Section IV: First Aid Measures

If you get electrolyte in your eyes, flush with water for 15 minutes without rubbing and immediately contact a physician. If you get electrolyte on your skin wash the area immediately with soap and water. If irritation continues, contact a physician. If the battery is ingested, call the National Capital Poison Center (NCPC) at 202-625-3333 (Collect) or your local poison center immediately.

Section V: Firefighting Measures

In case of fire, you can use dry chemical, alcohol resistant foam or carbon dioxide fire extinguishers. Cooling the exterior of the batteries will help prevent rupturing. Burning of these batteries will generate toxic fumes. Fire fighters should use self-contained breathing apparatus. Detailed information on

fighting a lithium ion battery fire can be found in Guide 147 (Lithium Ion Batteries) of the US DOT Emergency Response Guide.

Section VI – Accidental Release Measures

If batteries are spilled and damaged, they should be disposed of according to the disposal section.

Section VII – Handling and Storage

The battery pack and enclosed cells should not be opened, disassembled, crushed, burned, or exposed to high temperatures (> 60 °C or 140 °F).

Section VIII – Exposure Controls / Personal Protection

No personal protection is required during normal handling and use. Exposure to the ingredients contained within the cells within the battery pack could be harmful under some circumstances. In case of exposure to cell contents, wash affected area for at least 15 minutes with generous amounts of water and seek medical attention.

Section IX – Physical and Chemical Properties

These batteries are solid articles. Properties such as odor, pH, vapor pressure, solubility, etc. are not applicable. There are no known toxicological properties of the batteries during normal handling and use.

Section X – Stability and Reactivity

Reactivity:	None during normal handling and use
Incompatibility:	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.

Section XI – Toxicological Information

There are no known toxicological properties of the batteries during normal handling and use.

Section XII – Ecological Information

There are no known ecological risks of the batteries during normal handling and use.

Section XIII – Disposal

All Rose Electronics Li-ion batteries contain recyclable materials. Recycling options available in your local area should be considered when disposing of this product. Do not dispose of in fire. Rose Lithium ion batteries are classified by the federal government as non-hazardous waste and are safe for disposal in the normal municipal waste stream. These batteries, however, do contain recyclable materials and are accepted for recycling by the Call2Recycle Battery Recycling Program. Please call 1-800-8-BATTERY for information on recycling your used Lithium Ion battery or go to the Call2Recycle website at www.rbr.org for additional information.

Section XIV – Transport Information

These cells (and therefore the 1-cell pack) have been tested and pass in accordance with the United Nations Manual of Tests and Criteria, Part III subsection 38.3. Not regulated for transport under Special Provision 34 of the Canadian Transport of Dangerous Goods Regulations

2030 Ringwood Avenue • San Jose, CA 95131 • 800-632-4789 • www.rosebatteries.com

United States Hazardous Materials Regulations (49 CFR): These cells have passed the tests listed in the United Nations Manual of Tests and Criteria, Part 38.3. Not regulated for transport by Special Provision 188 of the United States Code of Federal Regulations Title 49.

International Air Transport Association (IATA): These cells must be tested and pass in accordance with the United Nations Manual of Tests and Criteria, Part III subsection 38.3.

Quantities of lithium ion cells and batteries that exceed the “per package” limits described in Section II of the packing instruction 965 and 967 must be assigned to class 9 and shipped as “Section IB”. All applicable requirements contained in the IATA Dangerous Goods Regulations relating to these commodities must be complied with, including the training requirements, with the exception of:

- UN Specification packaging is not required.
- A “Shipper’s Declaration for Dangerous Goods” is not required provided that the air waybill or alternative transport document contains the required information.

Packages must bear the Class 9 hazard label in addition to the lithium battery handling label. Lithium ion batteries larger than those permitted by Section II of the applicable packing instruction must be assigned to Class 9 and consigned as UN 3480 (Lithium ion batteries) or UN 3481 (Lithium ion batteries contained in equipment or Lithium ion batteries packed with equipment). All applicable requirements contained in the IATA Dangerous Goods Regulations relating to these commodities must be complied with, including the training requirements; a “Shipper’s Declaration for Dangerous Goods” must be issued, and packages must bear the Class 9 hazard label.

For air transport, specific quantity limits apply to the net weight of lithium batteries in a package. The maximum net weight of lithium batteries per package for Cargo Aircraft Only is 35 kg. However, there is provision for large lithium batteries that have IATA Lithium Battery Guidance Document - 2013 IDFS/Cargo Page 7 04/10/2012 a net weight exceeding 35 kg to be consigned on a cargo aircraft in accordance with Special Provision A99.

*Packing requirements:

General packing requirement: Cells and batteries must be packed in strong outer packaging that conform to 2.7.5

Additional requirements:

- 1) Cells and batteries must be packed in inner packaging that completely enclose the cell or battery.
- 2) Cells and batteries must be protected so as to prevent short circuits.
- 3) Each package must be capable of withstanding a 1.2m drop test in any orientation without damage to cells or batteries contained therein, shifting of the contents so as to allow battery to battery contact and release of contents.

*Each package must be labeled with a lithium battery handling label.

*Limitation of weight:

Quantity per package for both Passenger Aircraft and Cargo Aircraft can only have 10Kg in gross weight.

*Overpacks: Individual packages each complies with the requirements of part 1 may be placed in an overpack. An over-pack must be marked with the Word “Overpack” and labeled with the lithium battery label, unless the labels on the package inside the overpack are visible.

International Maritime Organization (IMO): These cells have passed the tests listed in the United Nations Manual of Tests and Criteria, Part 38.3. Not regulated for transport under Special Provision 188 of the International Maritime Dangerous Goods Code (IMDG).

2030 Ringwood Avenue • San Jose, CA 95131 • 800-632-4789 • www.rosebatteries.com

UN 3480 - Lithium ion batteries

UN 3481 - Lithium ion batteries packed with equipment/ Lithium ion batteries contained in equipment

Any Lithium ion cells or batteries subsequently repackaged or reshipped are required to meet all of the requirements specified above.

Section XV – Regulatory Information

The products referenced herein are “articles” under 29 CFR 1910.1200(c) and are not subject to OSHA's requirements for material safety data sheets under its Hazard Communication Standard, 29 CFR 1910.1200.

Section XVI - General Recommendations

CAUTION: Risk of fire, explosion and burns. Do not short-circuit, crush, incinerate or disassemble battery.

Section XVII – Other Information

Notice: The information and recommendations set forth are made in good faith and are believed to be accurate at the date of preparation. Rose Electronics makes no warranty expressed or implied with respect to this information and recommendations and disclaims all liability from reliance on it.