

Item no.: 1088912

Material Safety Data Sheet

1. Product & Company Identification

Product:	Rechargeable Lilon cell (model GTR26650E)
Manufacturer:	Conrad Electronic SE
Nominal voltage:	3,7 V
Nominal capacity:	4400 mAh
Address:	Klaus-Conrad-Str. 1, D-92240 Hirschau
Telephone:	+49 (0) 9604 / 40 - 8988
Date of issue:	31.05.2014

2. Composition / Information on ingredients

Percentages of composition:

Chemical name	Molecular formula	Weight percentage	CAS No.
Lithium cobalt nickel manganese oxide	$\text{LiNi}_x\text{Co}_y\text{Mn}_{1-x-y}\text{O}_2$	15 - 30%	/
Transition Metal Oxide (LCO)	C	10 - 18%	7440-44-0
Carbon (Graphite, Proprietary)	Cu	3 - 8%	7440-50-8
PVDF (Polyvinylidene Fluoride)	Al	1 - 5%	7429-90-5
Copper Foil	$(\text{C}_2\text{H}_2\text{F}_2)_n$	4 - 8%	/
Electrolyte (Proprietary)	$\text{C}_3\text{H}_4\text{O}_3$	4 - 5%	96-49-1
Al Film Cover	$\text{C}_3\text{H}_6\text{O}_3$	4 - 5%	616-38-6
Lithium	LiPF_6	2 - 4%	21324-40-3

3. Hazards identification

The lithium ion batteries are not hazardous when used according to the instructions of manufacturer under normal condition.

Emergency: Warning, do not open or disassemble. Do not expose to fire or open flame. Do not mix with batteries of varying sizes, chemistries or type. Under the condition of the fire will result in the risk of fire or explode. Do not short circuit, crush, incinerate, or disassemble.

4. First aid measures

In an event of battery fire or rupture, evacuate personnel from the contaminated area.

Eye contact: Flush with plenty of water for at least 15 minutes (eyelids held open). Seek medical assistance immediately.

Skin contact: Remove contaminated clothing. Wash the area with soap and plenty of water immediately and for at least 15 minutes. Seek medical assistance.

Inhalation: Seek medical assistance immediately.

Ingestion: Remove to fresh air immediately, seek medical assistance.

Item no.: 1088912

Material Safety Data Sheet

5. Fire fighting measures

In normal condition, wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection. Lithium ion batteries contain flammable liquid electrolyte that may vent, ignite and produce sparks when subjected to high temperatures (> 230 °C).

Extinguishing Media: Extinguishing with water, dry power extinguishers, sands, earth. Combustion products and decomposed products by contact of water or air with internal substance include: carbon monoxide, carbon dioxide, hydrogen fluoride, phosphorus fluoride.

6. Accidental release measures

General information: Select the appropriate personal protective equipment following the part 8.

Leakage: When leakage of batteries happens, liquid could be absorbed with sands, earth or other inert substance, and the contaminated area should be ventilated.

7. Handling and storage

Handling: Don't handle the batteries with metalwork. Don't vibrate cell transition

Storage: For long time storage, the batteries should be keep at 40%~60% SOD. Storage and use far away from heat, spark, open flame and under room temperature in ventilating place.

8. Exposure controls/Personal protection

Exposure Controls: Choose the proper ventilation

Eyes Protection: Without necessary under normal conditions, If the battery is damaged or leaking wear chemical safety goggles.

Skin Protection: Without necessary under normal conditions, If the battery is damaged or leaking wear appropriate protective gloves.

9. Physical and chemical properties

Physical state: Solid

Smell: No

Nominal voltage: 3.7 V

Nominal capacity: 4.4 Ah

Cell type: 26650

Solubility: Insoluble in water

Item no.: 1088912

Material Safety Data Sheet

10. Stability and reactivity

Stability: Stable under normal conditions of storage.

Avoid contact conditions: Overheated, exposure to moist air or water.

Decomposition products harm: In the burning conditions may produce harmful decomposition products.

11. Toxicological information

Since the materials in this cell are sealed in the can, the potential for exposure to the components of the cell is negligible, when the cell is used as directed. However technical or electrical abuse of the cell may result in the release of cell contents, may the leaked Dimethyl carbonate, Ethylene carbonate, Lithium hexafluorophosphate, Graphite, Copper.

To understand the specific information please query in the RTECS.

12. Ecological information

Ecological Information: There is no influence to ecology and environment when used properly.

13. Disposal

Disposal method: Disposal of the former should refer to the relevant national and local laws and regulations.

14. Transport information

Transport should be followed by the relevant provisions of IATA DGR "dangerous goods regulations", "International Maritime Dangerous Goods Code", and "European countries on the road transport of dangerous goods Protocol"

15. Regulatory information

Regulatory Information: Special requirement be according to the local regulatory.

The danger symbols:	Xn	Harmful
	N	Harmful to the environment

16. Other information

This information is just suit for the batteries manufactured by us. This information comes from reliable sources, but no warranty is made to the completeness and accuracy of information contained. It is the responsibility of the user to complete the product safety and other aspects of the test, to judge whether it meet your purpose.