

Material Safety Data Sheet

1. Product & Company Identification:

Product:	LiPo rechargeable battery 1100 mAh
Manufacturer:	Conrad Electronic SE
Model:	Akku LiPo 1100 mAh
Nominal capacity:	1100 mAh
Nominal voltage:	3.7 V
Address:	Klaus-Conrad-Strasse 1, D-92240 Hirschau
Telephone:	+49 (0) 9604 / 40 - 8988
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2. Composition/Information on Ingredient

Chemical name	Content (wt%)	CAS No.
Transition Metal Oxide	30-50	-
Carbon	15-25	7440-44-0
Aluminum Foil	3-10	7429-90-5
Copper Foil	5-12	7440-50-8
PVDF (Polyvinylidene Fluoride)	<8	24937-79-9
Electrolyte	10-20	-
Al Lamination Film	<10	-

3. Physical and Chemical Properties

Appearance	Solid
Odor	N/A
Vapor Pressure (mmHg)	N/A
Vapor Density (air=1)	N/A
Boiling Point	N/A
Solubility in water	Insoluble
Specific Gravity	N/A
Density	N/A

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4. Hazards Identification

Primary routes of entry

Skin contact	No
Skin absorption	No
Eye contact	No
Inhalation	No
Ingestion	No

Signs and Symptoms of Exposure

Skin Contact	No effect under routine handling and use
Skin absorption	No effect under routine handling and use
Eye Contact	No effect under routine handling and use
Inhalation	No effect under routine handling and use
Reported as carcinogen	Not applicable

Caution!

May explode in a fire, which could release hydrogen fluoride gas and smoke. Use extinguishing media suitable for materials burning in fire.

5. First Aid Measures

Inhalation	Not a health hazard.
Eye contact	Not a health hazard.
Skin contact	Not a health hazard.
Ingestion	If swallowed, obtain medical attention immediately.

Caution!

IF EXPOSURE TO INTERNAL MATERIALS WITHIN CELL DUE TO DAMAGED OUTER AI CASING, THE FOLLOWING ACTIONS ARE RECOMMENDED

Inhalation

If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth and seek medical attention.

Eye & Skin contact

In case of contact, immediately flush eyes or skin with copious amounts of water for at least 15 minutes while removing contaminated clothing and shoes; seek medical attention.

Ingestion

Drink milk / water and induce vomiting ; seek medical attention.

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6. Fire Fighting Measures

General Hazard

Cell is not flammable but internal organic material will burn if the cell is incinerated. Combustion products include, but are not limited to hydrogen fluoride, carbon monoxide and carbon dioxide.

Extinguishing Media

Use extinguishing media suitable for the materials that are burning.

Special Firefighting Instructions

If possible, remove cell(s) from fire fighting area. If heated above 130 °C, cell(s) may explode/swell or leak.

Firefighting Equipment

Use NISH/MSHA approved full-face self-contained breathing apparatus(SCBA) with full protective gear.

7. Accidental Release Measures

Procedures of Personal Precautions

Put on adequate protective equipment. Do not breathing vapour.

Environmental precautions

Keep away from drains, surface-water, ground-water and soil.

Methods for Cleaning Up

Collect as much as possible in a clean container for disposal. Disposal according to local regulations.

On Land

Place material into suitable containers and call local fire/police department.

In Water

If possible, remove from water and call local fire/police department.

8. Handling and Storage

Handling

No special protective clothing required for handling individual cells.

Storage

Store away from sources of heat or ignition. Over high temperature will make the cell inflate, melt the separator, causing short circuit.

Storage area should be cool, dry, well ventilated, out of direct sunlight, away from metal or sharp edge, such as keys, pins, or wires.

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9. Exposure Controls, Personal Protection

Respirator

Not required during normal operations. SCBA required in the event of a fire.

Eye/face protection

Not required beyond safety practices of employer.

Foot protection

Steel toed shoes recommended for large container handling.

Gloves

Not required for handling of cells.

10. Stability and Reactivity

Reactivity

None during normal operating or handling conditions.

Hazardous decomposition

None during normal operating conditions. If Cells are leaked, hydrogen fluoride, carbon monoxide and carbon dioxide may be released.

Incompatibilities

None during normal operation. Avoid exposure to heat, open flame and corrosives

Conditions to avoid

Don't short terminals and immerse in water or pour.

Don't heat or throw in fire and solder.

Don't attempt to crush or drop.

Don't put it in microwave oven, oven or pressure container.

11. Toxicological Information

This product does not elicit toxicological properties during routine handling and use.

Sensitization No

Teratogenicity No

Reproductive toxicity No

Acute toxicity No

If the cells are leaked through misuse or damage, discard immediately. Internal components of cell are irritants and sensitizer.



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12. Ecological Information

Some materials within the cell are bio-accumulative.

Under normal conditions, these materials are contained and pose no risk to persons or the surrounding environment.

13. Disposal Considerations

Methods of disposal

Lithium-ion Polymer battery contains no toxic metals, only naturally occurring trace elements. It is advisable to consult with local authorities as disposal regulations may vary dependent on location.

Dangers

Incinerating and disposing of the cell in fire are strictly prohibited, because it may cause rupture.

Fully charged battery may cause fire or explosion when disposed improperly. Fully discharged the battery before disposal.

14. Transport Information

The batteries are considered to be non-dangerous by the INTERNATIONAL CIVIL AVATION ORGANISATION (ICAO) and the INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA) because they can be classified as "NOT RESTRICTED" which is "Comply with Part 1 of PI965" of IATA DGR 50th Edition. The batteries are considered to be non-dangerous by the INTERNATIONAL MARITIME DANGEROUS GOODS regulation (IMDG). The Watt-hour rating of all batteries is not more than 100 Wh. Each battery of the type is Proven to meet the requirements of each test in the UN Manual of Tests and Criteria, Part II, subsection 38.3.

15. Regulatory Information

OSHA hazard communication standard (29CFR 1910.1200) : Non -Hazardous

16. Additional Information

The above information is based on the data of which we are aware and is believed to be correct as of the data hereof. Since this information may be applied under conditions beyond our control and with which may be unfamiliar and since data made available subsequent to the data hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.