

Safety Information Sheet – SiFly PowerCell LR Dangerous Goods According to UN3480



1. Product & Company Information

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Product Specification / Technical Datasheet

Product Code	PowerCell LR
Mount	Flat for sealed compartment
Cell Chemistry	Li-Ion (LiNiMnCoO ₂)
Cells	INR18650

Number of Cells	196
Capacity	44.8Ah / 2.3kWh
Voltage (Nominal)	52V
Dimensions	300×390×80 mm
Weight	12500g

2. Composition/Information on Ingredients

Characterisation

Battery Pack including Lithium metal oxide battery cells. The pack consists of 196 cells type INR18650.

Important information

The battery should not be opened, heated above 60°C or burned since the exposition with the ingredients could be harmful under certain conditions. Use only original charger. The product contains neither metallic lithium nor lithium alloy.

Composition

- Kathode: Lithium-Metal Oxide (active material)
- Polyvinylidene Fluoride (binder)
- Graphite (conductive material)
- Aluminum Foil
- Anode Carbon (active material)
- Polyvinylidene fluoride (binder)

- Copper Foil
- Electrolyte Organic Solvent (non-aqueous liquid)
- Lithium Salt

3. First aid measures

The batteries are hermetically closed. A risk of exposure can only occur when the cells are mechanically abused. The following first aid measures therefore only refer to the

handling in the case of release of the ingredients and not on the use of the battery under normal conditions.

General information

Protection for first aid: Acid-resistant gloves or equivalent. After first aid measures a doctor should be consulted.

In case of eye contact:

- In case of eye contact rinse thoroughly with water
- Remove contact lenses if required
- Contact a doctor

In case of skin contact

- Take off contaminated clothes
- In case of skin contact wash off with water
- Contact a doctor

4. Fire-fighting measures

Suitable extinguishing measures

- Water, with or without additive
- Dry chemical extinguishers

Extinguishing measures that may not be used for safety reasons

- Full water jet, metal fire extinguisher, CO₂, sand, Pyrobubbles

Special exposure hazards arising from the substance, combustible products or resulting gases

Fire fighting measures, rescue works and clearance works with impact of the smouldering fire fumes or fire gases should only be carried out with suitable respiratory protective equipment.

Additional information

Residues of fires and chemically contaminated water should be disposed in compliance with the local regulations.

5. Accidental release measures

Personal precautions

- Use personal protective clothing
- Avoid skin contact
- Respect section 4

6. Handling and storage

- Store in well ventilated cool areas
- Avoid Overheating, e.g. through incident solar radiation
- Protect from air humidity and water
- Do not short-circuit
- Storage temperature < 40°C
- For long term storage a charge state of 75% is optimal

7. Exposure controls / personal protection

If handled in a suitable way, no personal protective equipment is necessary.

8. Physical and chemical properties

Compact Battery Pack with plastic housing. The product neither contains metallic lithium nor lithium alloys.

9. Stability and Reactivity

Conditions to be avoided

Temperature >60°C

Shock in all axes

Mechanical forces greater than in normal use.

10. Toxicology

No risk if handled reasonable. In case of damages or improper use irritant or sensitizing ingredients may get released.

11. Ecology

No negative ecological effects are expected if the product is used and disposed according to local regulated guidelines.

12. Disposal

Batteries have to be collected separately from other waste. Avoid short circuits during collecting or storing. According to EU Directive 2006/66/EC the one who brings the battery on the market is responsible for a suitable collection and recycling of the battery system. Use only containers approved for collection.

13. Transport Information

Transport-temperature <60°C

Package

- All packages must be undamaged
- Provide complete labelling and designation
- Label
 - Complete address of sender and recipient
 - UN number UN 3480 (battery must not be connected to bicycle during transport)
 - Include proper shipping name
 - Gross weight

Designation

- Danger designation Class 9 with Class number in bottom corner

Land transport according to ADR/RID

This product has to be transported according to

- Transport Description Lithium batteries, secondary
- UN -No.-3480
- Classification- 9
- Packaging Class-II
- Packaging Order-P903
- Limitations-gross weight <333kg
- Special Provision-310 (Chapter 3.3 ADR for Europe)
- Tunnel code –E

Sea ship / ocean route according to IMDG

This product has to be transported according to

- Transport Description Lithium batteries, secondary
- UN -No. 3480
- Classification 9
- Packaging Class II
- Packaging Order P903
- Special Provision 310 (Chapter 3.3 IMDG Code)

Air transport according to IATA-DGR 2016 Update III

This product has to be transported according to

- Transport Description Lithium batteries, secondary
- UN -No. 3480
- Classification 9
- Packaging Class II
- Packaging instruction PI965 Part IA
- Limitation 5kg net weight in passenger aircraft, 35kg net weight in cargo aircraft
- Packager qualification IATA-qualification in compliance with 1.5

14. Other information

This information has been compiled from sources considered to be dependable and is, to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty (either expressed or implied) or guarantee is made to the accuracy, reliability or completeness of the information contained herein. This information relates to the specific materials designated and may not be valid for such material used in combination with any other materials or in any process. It is the user's responsibility to satisfy himself as to the suitability and completeness of this information for his particular use. SiFly LTD. does not accept liability for any loss or damage that may occur, whether direct, indirect, incidental or consequential, from the use of this information. SiFly LTD. does not offer warranty against patent infringement. SiFly LTD. makes no warranty expressed or implied.

15. Labeling for Carriage by Air

Correct labeling for cargo aircraft

