



**BOSCH**

Robert Bosch GmbH  
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**SAFETY INFORMATION - LITHIUM-IONS BATTERY PACK**

Robert Bosch GmbH

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**Batterypack**

13 July 2006

**1. Product- and Company Name**

**Tradename**

Battery pack

**Manufacturer/Distributor**

Robert Bosch GmbH

Power Tools

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D-70771 Leinfelden-Echterdingen

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Emergency Response

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**2. Composition/Information on ingredients**

**Characterisation**

Battery pack with Lithium metal oxide

**Important information**

The battery should not be opened, heated above 120°C or burned since the exposition with the ingredients could be harmful under certain conditions. The product contains neither metallic lithium nor lithium alloy.

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**Composition**

Kathode:	Lithium-Metal Oxide (active material) Polyvinylidene Fluoride (binder) Graphite (conductive material)
Anode	Carbon (active material) Polyvinylidene fluoride (binder)
Electrolyte	Organic Solvent (non aqueous liquid) Lithium Salt

**3. Possible Risks**

Not classified as dangerous according the EC-Guideline 1999/45/EG.

**4. 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**

In case of contact, take off immediately all contaminated clothing..

**In case of inhalation**

In case of damages possible risk of respiratory irritation. Supply fresh air. If disorders persist, contact a doctor.

**In case of skin contact**

In case of damages possible risk of skin irritation. In case of skin contact wash off with water and soap. If disorders persist, contact a doctor.

**In case of ey contact**

In case of damages possible risk of eye irritation. In case of eye contact rinse thoroughly with water. if disorders persist, contact a doctor.

**5. Fire-fighting measures**

Suitable extinguishing material



Water  
CO<sub>2</sub>  
Dry chemical extinguishers

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**Extinguishing material that may not be used for safety reasons**

Full water jet

**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.

**6. Accidental release measures****Personal precautions**

Use personal protective clothing. Avoid skin contact.

**Environmental precautions**

Dispose damaged batteries according pos. 13 of this safety information.

**Methods for cleaning up/taking up**

Soak up with suitable absorbent material and dispose in compliance with the regulations.

**7. 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 < 60°C.

**8. Exposure controls / personal protection**

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

**9. Physical and chemical properties**

Compact battery pack with plastic shell. The product neither contains metallic lithium nor lithium alloys.

**10. Stability and Reactivity**

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Not applicable.

**11. Toxicology**

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

**12. Ecology**

No negative ecologic effects are expected, if the product is used and disposed regularly.

**13. Disposal**

Batteries have to be collected separately from other wastes. Avoid short-Circuits during collecting or storing. If damages occur, batteries have to be packed solitary in a plastic bag.

Admit to an approved disposal system (e.g. Bosch). Use only approved Containers for the collection.

EWC Nr. 16 06 05 Other batteries and accumulators

**14. Transport information**

Transport temperature: < 60°C.

**Land transport (ADR/RID)**

The product fulfils the requirements of Special provision 188 of ADR/RID and is therefore, keeping the prescribed quantity limits, excepted from the application of the dangerous goods regulations.

**Sea ship**

The product fulfils the requirements of Special provision 188 of the IMDG-Code and is therefore, keeping the prescribed quantity limits, excepted from the application of the dangerous goods regulations.

**Air transport**

The product fulfils the requirements of Special provision A 45 of IATA-DGR and is therefore, keeping the prescribed quantity limits, excepted from the application of the dangerous goods regulations.

**Other appropriate information**

Disposal of used Lithium batteries according the Multilateral Agreement M 126 (only in the states, who signed this agreement)



**15. Other regulations**

**Labelling**

The product has not to be labelled/classified according the EC-Guidelines

**16. Other information**

Data do not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities.

The information describes exclusively the safety requirements for the product (s) and is based on the present level of our knowledge. The delivery specifications are contained in the corresponding product sheet.