PRODUCT SAFETY DATA SHEET

Lithium-Ion-Cobalt-Accumulator

2S1P CGR- 18650DA JST/KYCON

Item-No. 7860

1. Identification of the substance/preparation and of the manufacturer

Identification:	Product Category	: Lithium-Ion Rechargeable Battery
	Model Name	: 2S1P CGR-18650 DA JST/KYCON
	Nominal Voltage	: 7,2V
	Nominal Capacity	: 2,45 Ah
	Nominal Energy	: 17,64 Wh
	Chemical System	: Lithium-Cobalt-Oxide / Carbon
	Designed for Recharge	: ☒ Yes ☐ No

Manufacturer:

Name	: Batterien-Montage-Zentrum Am Sportplatz 30 D-63791 Karlstein am Main
Phone	: +49 (0) 6188 / 9956-0
Fax	: +49 (0) 6188 / 9956-900
Email	: mail@bmz-gmbh.de

Date prepared : 20.07.2009

Signature :

BMZ
THE BATTERY EXPERTS
BATTERIEN-MONTAGE-ZENTRUM GMBH
Am Sportplatz 30 · 63791 Karlstein am Main
Tel +49 6188 9956-0 · Fax +49 6188 9956-90
mail@bmz-gmbh.de · www.bmz-gmbh.de

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Gerhard Ferfers, Technical Manager

2. Hazards identification

Classification: The Lithium-Ion-Rechargeable Battery is not classified as hazardous material, because the nominal energy is not more than 100 Wh. This nominal energy in Watt hours must be marked outside the housing. **(2)**

Hazards: If cathode and anode of the battery come into contact with other metals, heat can build up or electrolyte can leak. Electrolyte is inflammable. In case of electrolyte leakage, put the battery out of fire range immediately.

Toxicity: If a battery burns, the vapors can irritate eyes, skin and the respiratory tract.

3. Composition and information of ingredients

Chemical composition:

Cathode	: .Lithium Nickel Cobalt Oxide	(active material)	20-30 wt%
	Polyvinyldiene Fluoride	(binder)	
	Graphite	(conductive material)	
Anode	Graphite	(active material)	5-20 wt%
	Polyvinyldiene Fluoride	(binder)	
Electrolyte	Organic Solvent	(non-aqueous liquid)	10-20 wt%
	Lithium Salt		
Others	Heavy metals such as Mercury, Cadmium, Lead, and Chromium is not used in the cells.		

4. Health Hazard Data

With normal conditions of use, these chemicals are contained in sealed can.
Risk of exposure occurs only if the battery is mechanically abused.

Inhalation	: Contents of an opened battery can cause respiratory irritation. Provide fresh air and call a doctor.
Skin Contact	: Contents of an opened battery can cause skin irritation. Wash skin with soap and water.

Eye Contact : Contents of an opened battery can cause eye irritation. Immediately flush eyes thoroughly with water and seek medical attention.

5. Fire hazard data

In case of fire : Use dry chemical extinguishers.

Pay Attention : Before starting to extinguish the fire, be sure, that you are at windward of fire.
So you cannot inhale toxic vapors.

6. Measures in unintended release

Wipe up leaked electrolyte with an absorbent cloth.
If there is a lot of leaked electrolyte, you should wear:
- protective clothing
- gasmask for organic gases
- safety goggles
- gauntlets

Put the battery out of fire range immediately.

7. Precautions for safe handling and storage

Storage: Storage temperature and
-20 to +35°C within 1 year
-20 to +40°C within 6 month
-20 to +45°C within 1 month
-20 to +50°C within 1 week
Humidity range: 10 – 80% and well ventilated area.
Short circuit can ransom burn. Do not store with metal objects.

Handling: Do not disassemble, crush, or solder.
Do not open the battery.

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Web: https://www.abqindustrial.net **E-mail:** info@abqindustrial.net

Charging:	Charge within the limits of 0°C to +45°C temperature. Charge only with specified charger designed for this battery.
Discharging:	Discharging within temperature limits of -20° C to +60°C
Caution:	Wrong handling can cause fire or explosion

8. Goods supervision and protective equipment

See point 7: advices must be observed.
You have to check continuously that storage temperature is within the bounds.
You have to check the ventilation that humidity range is within the bounds, too.
For normal use you don't need any protective equipment.

9. Physical and chemical properties

Lookout	: cells in a white shrink tube
Weight	: 118 g
Chemical Properties	: see no. 3

10. Stability and reactivity

During a long storage the capacity will be reduced and the lifespan of the battery will be shorter.
The plastic housing can be damaged by leaking electrolyte.

11. Toxicology

In normal use there will be no leaking and nobody can come into contact with toxically ingredients of the accumulator.

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12. Ecology

In normal use there won't be any environmental pollution.
If you don't use the accumulator anymore, you must recycle it. See point 13.

13. Advices for disposal

The accumulator is hazardous waste.
It is not allowed to dispose it with common waste.
If the battery is unusable, dispose it according to the applicable recycling regulations.
In Germany, for example, you can dispose hazardous waste at the foundation GRS (Gemeinsames Rücknahmesystem Batterien).

14. Transportation

Transportation on the road, by railway or by air: **(2), (3)**

The nominal energy of the accumulator is 17,64 Wh < 100 Wh. Therefore you **needn't to declare it as dangerous good**. See **(2)** SP 188

The loading capacity mustn't be higher than 50 % of the nominal capacity.

The accumulator must be protected against short circuit.

Each shipment must have label and a covering note with following statements:

- Caution!
- Lithium-Ion Batteries inside
- Cautiously handling of the goods.
- Do not load or transport package if damaged.
- Damaging can cause fire or explosion

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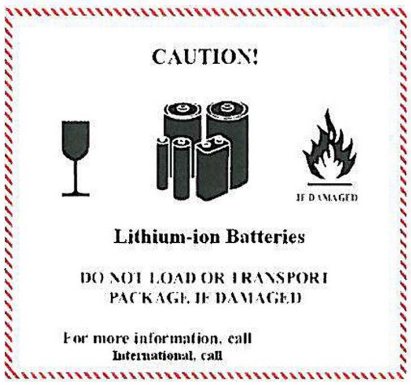
Size: 12.5 x 11,5 [cm]



Information: +49 (0) 6188-9956-0
sven.bauer@bmz-gmbh.de

Emergency call: 0171- 5441333 24 h

15. Regulations and rules

(1) UN 3480 / UN 3481 Transportation Regulations for Lithium Ion Batteries

(2) ADR 2009 – New provisions for road transport of dangerous goods, with SP 188 and the following amendments:
ECE/TRANS/WP.15/195 , 2008-02-28.
ECE/TRANS/WP.15/195/Corr.1 2008-06-04
ECE/TRANS/WP.15/195/Add.1 2008-06-10

(3) IATA Dangerous Goods Regulations, effective from 2009-01-01, with Packing Instructions 965, 966, 967, always part 1.

16. Others

Nothing.