

Zap&Go Carbon-Ion™ cell

Safety data sheet for ultra fast charging 3.0V Carbon-Ion, C-Ion™ or supercapacitor pouch cells

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Trade name ZAPGO, Zap&Go, Carbon-Ion, C-Ion

Relevant identified uses of the substance or mixture and uses advised against

No additional information available.

Manufacturer/Supplier

Supplier

Zapgo Ltd
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SECTION 2: Hazards identification

The cell chemical components are stored in a hermetically sealed pouch. The pouch material is designed to withstand temperatures and pressures encountered during normal use. As a result, during normal use there is no physical danger or threat of hazardous materials leakage.

If the cell is mishandled, heat generation, pouch swelling or electrolyte leakage may happen if the cell is short-circuited, has its polarity reversed, is punctured or endures any mechanical shock, or is exposed to fire. Electrolyte is non-flammable but can be corrosive to skin.

Moreover, if heated strongly by a surrounding fire, acrid gas may be emitted.

SECTION 3: Composition/information on ingredients

The product consists in one 3.0V pouch cell.

The cell contains electrodes made with an enhanced nano carbon composite and ionic electrolyte.

The physical form of the product precludes exposure to users under normal conditions of operation.

SECTION 4: First aid measures

Description of first aid measures

First-aid measures general	If the electrolyte is leaking out of the pouch, the following measures must be taken:
First-aid measures after inhalation	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
First-aid measures after skin contact	Take off contaminated clothing and shoes immediately. Wash affected skin with soap and plenty of water. Consult a physician.
First-aid measures after eye contact	Rinse affected eye thoroughly with plenty of water for at least 15 minutes and consult a physician.
First-aid measures after ingestion	DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

Symptoms/injuries Not expected to present a significant hazard under anticipated conditions of normal use.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media Do not use a heavy water stream.

Special hazards arising from the substance or mixture

Carbon oxides, Nitrogen oxides (NO_x), Sulphur oxides, Hydrogen fluoride.

Advice for firefighters

Firefighting instructions Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and material for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal. Dispose of materials or solid residues at an authorized site.

SECTION 7: Handling and storage

Precautions for safe handling

Precautions for safe handling Do not soak in water or seawater.
Do not expose to strong oxidisers.
Do not give a strong mechanical shock or fling.
Never disassemble, modify or deform.
Do not connect the positive terminal to the negative terminal of the cell with electrically conductive material.
Use only the components specified by Zap&Go.

Conditions for safe storage, including any incompatibilities

Storage conditions Avoid high temperature, high humidity.
Store in a cool place (temperature: -10 °C ~ 35 °C, humidity: 45°C - 85%).

Incompatible products Strong bases. Strong acids.

Incompatible materials Sources of ignition.

Prohibitions on mixed storage Store away from water.

Do not store together with electrically conductive materials. Avoid storing in places where cells are exposed to static electricity.

SECTION 8: Exposure controls/personal protection

Exposure controls

Appropriate engineering controls If the electrolyte is leaking out of the cell, the following measures must be taken:

Personal protective equipment Avoid all unnecessary exposure.

Hand protection Wear protective gloves

Type	Material	Permeation	Thickness (mm)	Standard
Disposable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0.12	EN 374

Eye protection

Chemical goggles or safety glasses



Other information

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Pouch cell
Colour	Silver
Explosive properties	None

Other information

No additional information available.

SECTION 10: Stability and reactivity

Reactivity

No additional information available.

Chemical stability

Stable under normal conditions.

Possibility of hazardous reactions

No additional information available.

Conditions to avoid

Extremely high or low temperatures, water, and humidity.

Incompatible materials

Conductive materials, water, seawater, strong oxidizers, and strong acids.

Hazardous decomposition products

Carbon monoxide and Carbon dioxide.

SECTION 11: Toxicological information

Information on toxicological effects

Potential adverse human health effects and symptoms

This product contains an ionic electrolyte. If the electrolyte is leaking out of the device, the following effects are known as a result of exposure: high dermal and oral toxicity, skin corrosion.

Other information

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

SECTION 12: Ecological information

Additional information

Do not allow the device to penetrate the soil.

The cell may corrode and electrolyte may leak.

SECTION 13: Disposal considerations

Waste treatment methods

Waste disposal recommendations

Dispose in a safe manner in accordance with local/national regulations. Refer to manufacturer/supplier for information on recovery/recycling.

Ecology-waste materials

Avoid release to the environment.

SECTION 14: Transport information

THIS PRODUCT IS CONSIDERED AS NON-HAZARDOUS UNDER CURRENT REGULATIONS

Special precautions for user

- Overland transport

Classification code (ADR)	none
Special provisions (ADR)	none
Limited quantities (ADR)	none
Packing instructions (ADR)	none
Tunnel restriction code (ADR)	none

- Transport by sea

Special provisions (IMDG)	none
Limited quantities (IMDG)	none
Packing instructions (IMDG)	none
EmS-No. (Fire)	none
EmS-No. (Spillage)	none
Stowage category (IMDG)	none
MFAG-No	none

- Air transport

PCA packing instructions (IATA)	none
PCA max net quantity (IATA)	none
Special provisions (IATA)	none

- Rail transport

Special provisions (RID)	none
Limited quantities (RID)	none
Packing instructions (RID)	none
Carriage prohibited (RID)	none

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No additional information available.

SECTION 15: Regulatory information

No additional information available.

SECTION 16: Other information

No additional information available.

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.