

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

Product identifier

Lithium-ion Polymer Battery

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

Use of the substance/mixture

Lithium-Ion battery

Details of the supplier of the safety data sheet

Mettler Toledo AG
Im Langacher
8606 Greifensee
Telephone: +41 44 944 22 11
Telefax: +41 44 944 31 90
www.mt.com

http://www.mt.com/global/en/home/products/Laboratory_Weighing_Solutions/Software_Accessories/external_power_units.html

Emergency telephone:

Further Information

+41 44 944 22 11

SECTION 2: Hazards identification

Label elements

Hazardous components which must be listed on the label

As an article the product does not need to be labelled in accordance with EC-directives or respective national laws.

Other hazards

Not classified as dangerous according to directive 1999/45/EC.
There is no hazard when the measures for handling and storage are followed.
In case of cell damage, possible release of dangerous substances and a flammable gas mixture.

SECTION 3: Composition/information on ingredients

Mixtures

Chemical characterization

Lithium-Ion battery

Hazardous components

EC No.	Chemical name	Quantity
CAS No.	Classification	
REACH No.		
235-362-0	Lithium cobalt(III) oxide	25 ~ 30 %
12190-79-3	Carc. Cat. 3 R40-43	
231-159-6	Copper foil	15 ~ 20 %
7440-50-8		
	PP or PE	15 ~ 20 %
231-153-3	Carbon	10 ~ 15 %
7440-44-0		
202-510-0	Ethylene carbonate	10 ~ 15 %
96-49-1	Xi R41	
231-072-3	Aluminium foil	4 ~ 6 %
7429-90-5		
244-334-7	Lithium hexafluorophosphate(1-)	3 ~ 5 %
21324-40-3	C, Xn R20/21/22-34	

Full text of each relevant R phrase can be found in heading 16.

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Further Information

Because of the cell structure the dangerous ingredients will not be available if used properly.

SECTION 4: First aid measures

Description of first aid measures

General information

The following first aid measures are required only in case of exposure to interior battery components after damage of the external battery casing.

Undamaged, closed cells do not represent a danger to the health.

After inhalation

Ensure of fresh air.

Consult a physician.

After contact with skin

In case of contact with skin wash off immediately with plenty of water.

Consult a physician.

After contact with eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Seek medical treatment by eye specialist.

After ingestion

Drink plenty of water.

Call a physician immediately.

Most important symptoms and effects, both acute and delayed

The product causes burns of eyes, skin and mucous membranes.

Indication of any immediate medical attention and special treatment needed

Treat symptoms.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Sand, Carbon dioxide (CO₂), Dry powder. Foam.

Extinguishing media which must not be used for safety reasons

water, Water spray jet

Special hazards arising from the substance or mixture

Risk of bursting of the receptacle.

Advice for firefighters

Wear self-contained breathing apparatus and protective suit.

Additional information

If possible, remove cell(s) from firefighting area. If heated above 125°C, cell(s) can explode/vent.

Cell is not flammable but internal organic material will burn if the cell is incinerated.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use personal protective clothing.

Avoid contact with skin, eyes and clothing.

Avoid breathing fume and gas.

Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

Methods and material for containment and cleaning up

Take up mechanically and send for disposal.

Reference to other sections

Observe protective instructions (see Sections 7 and 8).

Information for disposal look up chapter 13.

SECTION 7: Handling and storage

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Precautions for safe handling**Advice on safe handling**

Avoid short circuiting the cell. Avoid mechanical damage of the cell. Do not open or disassemble.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition.

Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed in a dry, cool and well-ventilated place.

Advice on storage compatibility

Keep away from heat and sources of ignition. Protect from atmospheric moisture and water.

Ensure battery terminals are protected during storage.

Further information on storage conditions

Keep at temperatures between 5°C and 25°C.

Relative humidity: 65%(+/-5%)

Specific end use(s)

Lithium-Ion battery

SECTION 8: Exposure controls/personal protection**Control parameters****Exposure limits (EH40)**

CAS No.	Chemical name	ml/m ³	mg/m ³	F/ml	Category	Origin
7429-90-5	Aluminium metal, respirable dust	-	4		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL
7440-50-8	Copper, dusts and mists (as Cu)	-	1		TWA (8 h)	WEL
		-	2		STEL (15 min)	WEL
16984-48-8	Fluoride (inorganic as F)	-	2.5		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL
7440-44-0	Graphite, respirable	-	4		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL

Additional advice on limit values

During normal charging and discharging there is no release of product.

Exposure controls**Occupational exposure controls**

No specific precautions necessary.

Protective and hygiene measures

When using do not eat, drink or smoke.

Wash hands before breaks and after work.

Respiratory protection

Effective dust mask

Hand protection

Neoprene gloves (EN 374)

Eye protection

Tightly fitting goggles (EN 166)

Skin protection

Boots, apron, long sleeved clothing.

SECTION 9: Physical and chemical properties**Information on basic physical and chemical properties**

Physical state:

Lithium-Ion battery

Colour:

Silver

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Odour:	Odourless	
		Test method
pH-Value:		n.a
Changes in the physical state		
Flash point:		n.a
Lower explosion limits:		n.a
Ignition temperature:		n.a
Vapour pressure:		n.a
Density:		n.a
Water solubility:		Insoluble

SECTION 10: Stability and reactivity

Reactivity

No decomposition if stored and applied as directed.

Chemical stability

Stable under normal conditions.

Possibility of hazardous reactions

No hazardous reactions known.

Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition.
Do not puncture, crush or incinerate.
Protect from moisture.

Incompatible materials

No materials to be especially mentioned.

Hazardous decomposition products

In case of open cells, there is the possibility of hydrofluoric acid and carbon monoxide release.

SECTION 11: Toxicological information

Information on toxicological effects

Empirical data on effects on humans

If appropriately handled and if in accordance with the general hygienic rules, no damages to health have become known.

SECTION 12: Ecological information

Further information

Ecological injuries are not known or expected under normal use.
Do not flush into surface water or sanitary sewer system.

SECTION 13: Disposal considerations

Waste treatment methods

Advice on disposal

For recycling consult manufacturer.

Waste disposal number of waste from residues/unused products

160605 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; batteries and accumulators; other batteries and accumulators

Contaminated packaging

Disposal in accordance with local regulations.

SECTION 14: Transport information

Land transport (ADR/RID)

UN number: UN3480

UN proper shipping name: Lithium-ion battery

Transport hazard class(es): 9

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Packing group: II
Hazard label: 9



Classification code: M4
Special Provisions: 188 230 310 636
Limited quantity: 0
Transport category: 2
Tunnel restriction code: E

Other applicable information (land transport)

Special provision 188: Product is not subject to ADR/RID.

Inland waterways transport

UN number: UN3480
UN proper shipping name: Lithium-ion battery
Transport hazard class(es): 9
Packing group: II
Hazard label: 9



Classification code: M4
Special Provisions: 188 230 310 348 636 656
Limited quantity: 0

Marine transport

UN number: UN3480
UN proper shipping name: Lithium-ion battery
Transport hazard class(es): 9
Packing group: II
Hazard label: 9



Special Provisions: 188, 230, 310, 348, 957
Limited quantity: 0
EmS: F-A, S-I

Other applicable information (marine transport)

Special provision 188: Product is not subject to IMDG Code.

Air transport

UN/ID number: UN3480
UN proper shipping name: Lithium-ion battery
Transport hazard class(es): 9
Packing group: II
Hazard label: 9



Special Provisions: A88 A99 A154 A164 A183
Limited quantity Passenger: -
IATA-packing instructions - Passenger: 965
IATA-max. quantity - Passenger: 5 kg G
IATA-packing instructions - Cargo: 965
IATA-max. quantity - Cargo: 35 kg G

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Other applicable information (air transport)

Packing instructions 967 Part 2: Product is not subject to IATA-DGR.

Environmental hazards

Dangerous for the environment: no

Special precautions for user

No special precautions required.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

The transport takes place only in approved and appropriate packaging.

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulatory information

1999/13/EC (VOC): 0 %

National regulatory information

Water contaminating class (D): - - not water contaminating

SECTION 16: Other information

Full text of R-phrases referred to under sections 2 and 3

Harmful by inhalation, in contact with skin and if swallowed.

Causes burns.

Limited evidence of a carcinogenic effect.

Risk of serious damage to eyes.

May cause sensitization by skin contact.

Further Information

Data of items 4 to 8, as well as 10 to 12, do partly 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. This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations. (n.a. = not applicable; n.d. = not determined)

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)