

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH)

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## Batterietypen 5500005-5500008

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

#### 1.1. Product identifier

Trade name/designation:

Batterietypen 5500005-5500008

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture:

Professional:

#### 1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):

**FRIWO Gerätebau GmbH**

Solution Design Engineer Battery

Von-Liebig-Straße 11

48346 Ostbevern

Telephone: +49 (0)2532 81-0

Telefax: : +49 (0)2532 81-112

E-mail: batterieexperte@friwo.com

Website: www.friwo.de

#### 1.4. Emergency telephone number

02532 81-800 (Only available during office hours.)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]:

No data available

Classification according to Directive 67/548/EEC or 1999/45/EC:

There is no requirement for the product to be specially labelled according to EC directives or the corresponding national laws. Hazardous ingredients: Li (Ni-CO-Al)O<sub>2</sub>, Solvent

#### 2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

According to EC directives or the corresponding national regulations the product does not have to be labelled.

Supplemental Hazard information (EU): -

##### Precautionary statements Prevention

P210.1	Keep away from heat.
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##### Precautionary statements Response

P370 + P378.2	In case of fire: Use extinguishing powder or sand to extinguish.
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Additional information:

Hazardous ingredients: H 261, H302, H312, H317, H318, H334

Labelling (67/548/EEC or 1999/45/EC)

Hazard statements: -

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### Precautionary statements

S15	Keep away from heat.
S43.5	In case of fire, use extinguishing powder or sand.

### 2.3. Other hazards

#### Adverse physicochemical effects:

Brandgefahr bei Beschädigung oder Kurzschluss

## SECTION 3: Composition / information on ingredients

### 3.2. Mixtures

#### Description:

Lithium-Ionen-Batterie

#### Hazardous ingredients / Hazardous impurities / Stabilisers:

Product identifiers	Substance name Classification according to 67/548/EEC Classification according to Regulation (EC) No. 1272/2008 [CLP]	Concentration
CAS No.: 96-49-1 EC No.: 202-510-0	ethylene carbonate	> 10 - < 25

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information:

No risks worthy of mention.

#### Following inhalation:

Provide fresh air.

#### In case of skin contact:

Ausgetretenen Inhaltsstoffe: Wash immediately with: Water and soap

#### After eye contact:

Ausgetretene Inhaltsstoffe: After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

#### After ingestion:

nicht relevant

#### Self-protection of the first aider:

Ausgetretene Inhaltsstoffe nicht ungeschützt berühren

### 4.2. Most important symptoms and effects, both acute and delayed

nicht bekannt

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### Suitable extinguishing media:

ABC-powder Sand Cement

#### Unsuitable extinguishing media:

Water

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### 5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: Nitrogen oxides (NOx) Carbon monoxide. Pyrolysis products, toxic, Hydrogen fluoride

### 5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

### 5.4. Additional information

Exothermic reaction with: Wasser, Heating causes rise in pressure with risk of bursting.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

##### Personal precautions:

Wear personal protection equipment.

##### Protective equipment:

Bei beschädigten Batterien: Wear protective gloves and eye/face protection.

#### 6.1.2. For emergency responders

No data available

### 6.2. Environmental precautions

Ensure waste is collected and contained.

### 6.3. Methods and material for containment and cleaning up

#### For cleaning up:

Take up mechanically, placing in appropriate containers for disposal.

### 6.4. Reference to other sections

No data available

### 6.5. Additional information

No data available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Protective measures

##### Advices on safe handling:

No special technical protective measures are necessary.

##### Fire prevent measures:

Usual measures for fire prevention. Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

##### Measures to prevent aerosol and dust generation:

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##### Environmental precautions:

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##### Advices on general occupational hygiene

Wash hands before breaks and after work.

### 7.2. Conditions for safe storage, including any incompatibilities

#### Requirements for storage rooms and vessels:

Do not store together with: Flammable aerosols Flammable liquids Flammable solids

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### 7.3. Specific end use(s)

#### Recommendation:

Observe technical data sheet. Observe instructions for use.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No data available

### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

No data available

#### 8.2.2. Personal protection equipment

##### Eye/face protection:

Tightly sealed safety glasses. Face protection shield

##### Skin protection:

When using do not eat, drink, smoke, sniff.

Hand protection: Wear protective gloves.

Suitable material: Chromate-free leather

##### Respiratory protection:

With correct and proper use, and under normal conditions, breathing protection is not required.

##### Other protection measures:

Protective clothing: Wear suitable protective clothing.

General health and safety measures: Wash contaminated clothing prior to re-use.

#### 8.2.3. Environmental exposure controls

No data available

### 8.3. Additional information

To date, no national critical limit values exist.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Appearance

Physical state: solid

Colour: ---

Odour: odourless

#### Safety relevant basis data

parameter		at °C	Method	remark
pH	<i>not applicable</i>			
Melting point/freezing point	<i>not applicable</i>			
Freezing point	<i>not applicable</i>			
Initial boiling point and boiling range	<i>not applicable</i>			
Decomposition temperature (°C):	<i>not determined</i>			
Flash point	<i>not applicable</i>			
Evaporation rate	<i>not applicable</i>			
Ignition temperature in °C	<i>not determined</i>			

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parameter		at °C	Method	remark
Upper/lower flammability or explosive limits	<i>not applicable</i>			
Vapour pressure	<i>not applicable</i>			
Vapour density	<i>not applicable</i>			
Density	<i>not applicable</i>			
Bulk density	<i>not applicable</i>			
Water solubility (g/L)	<i>not determined</i>			
Partition coefficient: n-octanol/water	<i>not applicable</i>			
Dynamic viscosity	<i>not applicable</i>			
Kinematic viscosity	<i>not applicable</i>			

### 9.2. Other information

Entzündlichkeit (Feststoff/Gas): not applicable

Selbstentzündlichkeit (Feststoff/Gas): not applicable

Oxidising properties: No

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No data available

### 10.2. Chemical stability

No data available

### 10.3. Possibility of hazardous reactions

Heating causes rise in pressure with risk of bursting.

### 10.4. Conditions to avoid

Keep away from heat. Pole gegen Kurzschluss sichern

### 10.5. Incompatible materials

No data available

### 10.6. Hazardous decomposition products

No data available

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute oral toxicity:

No data available

#### Acute dermal toxicity:

No data available

#### Acute inhalation toxicity:

not applicable

#### Skin corrosion/irritation:

No data available

#### Eye damage/irritation:

not applicable

#### Respiratory or skin sensitisation:

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**Germ cell mutagenicity:**

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**Carcinogenicity:**

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**Reproductive toxicity:**

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**STOT-single exposure:**

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**STOT-repeated exposure:**

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**Aspiration hazard:**

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**Additional information:**

Specific symptoms in animal studies: No data available

Repeated dose toxicity (subacute, subchronic, chronic): No data available

Other information: No data available

Observations relevant to classification: No data available

Other observations: No data available

Other information: No data available

## SECTION 12: Ecological information

### 12.1. Toxicity

**Aquatic toxicity:**

not applicable

**Sediment toxicity:**

nicht anwendbar

**Terrestrial toxicity:**

No data available

**Effects in sewage plants:**

No data available

**Assessment/classification:**

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**Additional ecotoxicological information:**

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### 12.2. Persistence and degradability

**Abiotic degradation:**

nicht anwendbar

**Biodegradation:**

nicht anwendbar

**Additional information:**

Further ecological information: No data available No data available

### 12.3. Bioaccumulative potential

**Bioconcentration factor (BCF):**

nicht anwendbar

**Partition coefficient: n-octanol/water:**

not applicable

**Accumulation / Evaluation:**

No data available

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### 12.4. Mobility in soil

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### 12.5. Results of PBT and vPvB assessment

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### 12.6. Other adverse effects

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## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Special monitoring requiring wastes. Consult the appropriate local waste disposal expert about waste disposal.

#### Waste treatment options





#### Appropriate disposal / Package:

Special monitoring requiring wastes. Consult the appropriate local waste disposal expert about waste disposal.

### 13.2. Additional information

No data available

## SECTION 14: Transport information

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA- DGR)
<b>14.1. UN-No.</b>			
3480	3480	3480	3480
<b>14.2. UN proper shipping name</b>			
Lithium-Ionen-Batter- ie	Lithium-Ionen-Batter- ie	Lithium Ion Batteries	Lithium Ion Batteries
<b>14.3. Transport hazard class(es)</b>			
 9	 9	 9	 9
<b>14.4. Packing group</b>			
No data available			
<b>14.5. Environmental hazards</b>			
No	No	No	No

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Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA- DGR)
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### 14.6. Special precautions for user

Special provisions: 230, 310, 348, 376, 377, 636	Special provisions: 230, 310, 348, 376, 377, 636	Special provisions: 230, 310, 348, 376, 377	Special provisions: A88, 99, 154, 164, 181, 185
<b>Limited quantity (LQ): 0</b>	<b>Limited quantity (LQ): 0</b>	<b>Limited quantity (LQ): 0</b>	<b>Limited quantity (LQ): ---</b>
<b>Hazard identifi- cation number (Keml- er No.):</b>	<b>Classification code: M4</b>	<b>EmS-No.: F-A; S-I</b>	<b>remark: PI 965</b>
<b>Classification code: M4</b>	<b>remark:</b>	<b>remark:</b>	
<b>tunnel restriction code: E</b>			
<b>remark:</b>			

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**  
No data available

## SECTION 15: Regulatory information

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

### 15.1.1. EU legislation

No data available

### 15.1.2. National regulations

 [DE] National regulations

**Restrictions of occupation**

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**Technische Anleitung Luft (TA-Luft)**

**Klasse 1:**

-

**Ziffer 1:**

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**Klasse 2:**

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**Ziffer 2:**

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**Water hazard class (WGK)**

**WGK:**

keine Angabe

**Source:**

S Selbsteinstufung

**15.2. Chemical Safety Assessment**

No data available



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### 15.3. Additional information

No data available

## SECTION 16: Other information

### 16.1. Indication of changes

No data available

### 16.2. Abbreviations and acronyms

No data available

### 16.3. Key literature references and sources for data

-Manufacturer

### 16.4. Classification for mixtures and used evaluation method according to regulation (EC) 1272/2008 [CLP]

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]:

No data available

### 16.5. Relevant R-, H- and EUH-phrases (Number and full text)

No data available

### 16.6. Training advice

No data available

### 16.7. Additional information

No data available