

BGS technic KG  
42929 Wermelskirchen

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

### 1.1 Product identifier

**Cordless Impact Wrench (BGS 9919)**  
**Replacement Battery, Li-Ion, 18.0 V, 4.0 Ah (BGS 9923)**

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

#### 1.2.1 Relevant uses

accumulator

#### 1.2.2 Uses advised against

None known.

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

#### Company

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#### Address enquiries to

##### Technical information

[mail@bgs-technic.de](mailto:mail@bgs-technic.de)

##### Safety Data Sheet

[sdb@chemiebuero.de](mailto:sdb@chemiebuero.de)

### 1.4 Emergency telephone number

#### Advisory body

+49 (0)89-19240 (24h) (English)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture [REGULATION (EC) No 1272/2008]

Skin Corr. 1A: H314 Causes severe skin burns and eye damage.  
Eye Dam. 1: H318 Causes serious eye damage.

### 2.2 Label elements

This product is an article and therefore it does not require labelling according to EC directives [REACH/CLP].

### 2.3 Other hazards

#### Physico-chemical hazards

When cell is exposed to an external short-circuit, it will cause heat generation and ignition. The chemicals are contained within a sealed housing. There is only a risk of exposure if the battery is subject to mechanical or electrical misuse.

#### Environmental hazards

Does not contain any PBT or vPvB substances.

#### Other hazards

Further hazards were not determined with the current level of knowledge.

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### SECTION 3: Composition / Information on ingredients

#### Product-type:

The product is an article.

Range [%]	Substance
0,05 - 5	Lithium hexafluorophosphate CAS: 21324-40-3, EINECS/ELINCS: 244-334-7 GHS/CLP: Acute Tox. 3: H301 - Skin Corr. 1A: H314 - Eye Dam. 1: H318 - STOT RE 1: H372
1 - 4	Ethylene carbonate CAS: 96-49-1, EINECS/ELINCS: 202-510-0 GHS/CLP: Eye Irrit. 2: H319 - Acute Tox. 4: H302 - STOT RE 2: H373
1 - 4	Propylene carbonate CAS: 108-32-7, EINECS/ELINCS: 203-572-1, EU-INDEX: 607-194-00-1 GHS/CLP: Eye Irrit. 2: H319

#### Comment on component parts

Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.  
For full text of H-statements: see SECTION 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

##### General information

Measures are only valid for damaged cells.

##### Inhalation

Remove the victim into fresh air and keep him calm.  
In the event of symptoms seek medical treatment.

##### Skin contact

In case of contact with skin wash off immediately with soap and water.  
Immediate medical treatment necessary, as untreated burns can result in slow-healing wounds.

##### Eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Consult a doctor immediately.

##### Ingestion

Consult a doctor immediately.  
Do not induce vomiting.

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

Product is caustic.

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

Treat symptomatically.

### SECTION 5: Fire-fighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing media

All extinguishing media are suitable but method must take into account the surrounding area to minimize dispersion.

##### Extinguishing media that must not be used

Full water jet

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

Risk of formation of toxic pyrolysis products.  
Bursting batteries can be forcibly projected from a fire.

#### 5.3 Advice for firefighters

Use self-contained breathing apparatus.  
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

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## SECTION 6: Accidental release measures

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

Not required under normal conditions.

### 6.2 Environmental precautions

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

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

Take up mechanically.

Dispose of absorbed material in accordance within the regulations.

### 6.4 Reference to other sections

See SECTION 8+13

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

The data of the manufacturer concerning the loading and unloading parameters and the recommended temperature ranges are to be considered.

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

Prevent penetration into the ground.

Do not store together with food and animal food/diet.

Store in a dry place.

Protect from heat/overheating.

Storage: 20 - 30°C

### 7.3 Specific end use(s)

See product use, SECTION 1.2

## SECTION 8: Exposure controls / personal protection

### 8.1 Control parameters

#### Ingredients with occupational exposure limits to be monitored (GB)

Substance
Lithium hexafluorophosphate
CAS: 21324-40-3, EINECS/ELINCS: 244-334-7
Long-term exposure: 2,5 mg/m <sup>3</sup> , Fluoride (inorganic as F)
Graphite
CAS: 7782-42-5, EINECS/ELINCS: 231-955-3
Long-term exposure: 10 mg/m <sup>3</sup> , (inhalable dust)

#### Ingredients with occupational exposure limits to be monitored (EU)

Substance / EC LIMIT VALUES
Lithium hexafluorophosphate
CAS: 21324-40-3, EINECS/ELINCS: 244-334-7
Eight hours: 2,5 mg/m <sup>3</sup> , F

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## 8.2 Exposure controls

<b>Additional advice on system design</b>	Measures apply only to the damaged product. Ensure adequate ventilation on workstation.
<b>Eye protection</b>	safety glasses (EN 166:2001)
<b>Hand protection</b>	0,7 mm; Butyl rubber, >480 min (EN 374-1/-2/-3).
<b>Skin protection</b>	Protective clothing (EN 340)
<b>Other</b>	Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.
<b>Respiratory protection</b>	Short term: combination filter A-P3. (DIN EN 14387)
<b>Thermal hazards</b>	none
<b>Delimitation and monitoring of the environmental exposition</b>	Protect the environment by applying appropriate control measures to prevent or limit emissions.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>Form</b>	Battery
<b>Color</b>	various
<b>Odor</b>	odourless
<b>Odour threshold</b>	not applicable
<b>pH-value</b>	not applicable
<b>pH-value [1%]</b>	not applicable
<b>Boiling point [°C]</b>	not applicable
<b>Flash point [°C]</b>	not applicable
<b>Flammability (solid, gas) [°C]</b>	not applicable
<b>Lower explosion limit</b>	not applicable
<b>Upper explosion limit</b>	not applicable
<b>Oxidising properties</b>	no
<b>Vapour pressure/gas pressure [kPa]</b>	not applicable
<b>Density [g/ml]</b>	not determined
<b>Bulk density [kg/m<sup>3</sup>]</b>	not applicable
<b>Solubility in water</b>	not applicable
<b>Partition coefficient [n-octanol/water]</b>	not applicable
<b>Viscosity</b>	not applicable
<b>Relative vapour density determined in air</b>	not applicable
<b>Evaporation speed</b>	not applicable
<b>Melting point [°C]</b>	not determined
<b>Autoignition temperature [°C]</b>	not determined
<b>Decomposition temperature [°C]</b>	not determined

### 9.2 Other information

none

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No dangerous reactions known if used as directed.

### 10.2 Chemical stability

The product is stable under standard conditions.

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### 10.3 Possibility of hazardous reactions

When cell is exposed to an external short-circuit, it will cause heat generation and ignition.  
Heating leads to a risk of bursting and of electrolyte fluid escaping.  
Avoid mechanical and electrical misuse.

### 10.4 Conditions to avoid

Heating > 80°C

### 10.5 Incompatible materials

No information available.

### 10.6 Hazardous decomposition products

No hazardous decomposition products known.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Substance
Lithium hexafluorophosphate, CAS: 21324-40-3
LD50, oral, Rat: > 50 - 300 mg/kg (Lit.).
ATE, oral, 100 mg/kg (category 3).
Ethylene carbonate, CAS: 96-49-1
LD50, dermal, Rabbit: > 3000 mg/kg (Lit.).
LD50, oral, Rat: 10000 mg/kg (Lit.).
Propylene carbonate, CAS: 108-32-7
LD50, dermal, Rabbit: > 2000 mg/kg.
LD50, oral, Rat: > 5000 mg/kg.

#### Serious eye damage/irritation

Risk of serious damage to eyes.  
Based on the available information, the classification criteria are fulfilled.  
Calculation method

#### Skin corrosion/irritation

May cause burns.  
Based on the available information, the classification criteria are fulfilled.  
Calculation method

#### Respiratory or skin sensitisation

Based on the available information, the classification criteria are not fulfilled.

#### Specific target organ toxicity — single exposure

Based on the available information, the classification criteria are not fulfilled.

#### Specific target organ toxicity — repeated exposure

Based on the available information, the classification criteria are not fulfilled.

#### Mutagenicity

Based on the available information, the classification criteria are not fulfilled.

#### Reproduction toxicity

Based on the available information, the classification criteria are not fulfilled.

#### Carcinogenicity

Based on the available information, the classification criteria are not fulfilled.

#### Aspiration hazard

Based on the available information, the classification criteria are not fulfilled.

#### General remarks

Toxicological data of complete product are not available.  
Classification refers to ingredients. The ingredients are not accessible during normal use of the product.

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## SECTION 12: Ecological information

### 12.1 Toxicity

Substance
Lithium hexafluorophosphate, CAS: 21324-40-3
EC50, (3h), Activated sludge: > 1000 mg/l (Lit.).
EC50, (72h), Pseudokirchneriella subcapitata: > 100 mg/l (Lit.).
EC50, (48h), Daphnia magna: > 100 mg/l (Lit.).
Propylene carbonate, CAS: 108-32-7
LC50, (96h), Cyprinus carpio: > 1000 mg/l.
EC50, (72h), Algae: > 900 mg/l.
EC50, (48h), Daphnia magna: > 1000 mg/l.

### 12.2 Persistence and degradability

<b>Behaviour in environment compartments</b>	No information available.
<b>Behaviour in sewage plant</b>	No information available.
<b>Biological degradability</b>	not determined

### 12.3 Bioaccumulative potential

Accumulation in organisms is not expected.

### 12.4 Mobility in soil

Spillages may penetrate the soil causing ground water contamination.

### 12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

### 12.6 Other adverse effects

None known.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Waste material c It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

#### Product

For recycling, consult manufacturer.

#### Waste no. (recommended)

200134

#### Contaminated packaging

Uncontaminated packaging may be taken for recycling.

#### Waste no. (recommended)

150102

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## SECTION 14: Transport information

### 14.1 UN number

Transport by land according to ADR/RID 3480

Inland navigation (ADN) 3480

Marine transport in accordance with IMDG 3480

Air transport in accordance with IATA 3480

### 14.2 UN proper shipping name

Transport by land according to ADR/RID Lithium ion batteries (No dangerous goods, according ADR special regulations 188)

- Classification Code M4

- ADR LQ 0 kg

- ADR 1.1.3.6 (8.6) Transport category (tunnel restriction code) 2 (E)

Inland navigation (ADN) Lithium ion batteries (No dangerous goods, according ADR special regulations 188)

- Classification Code M4

Marine transport in accordance with IMDG Lithium ion batteries (No dangerous goods, according IMDG Special regulations 188)

- EMS F-A, S-I

- IMDG LQ 0 I

Air transport in accordance with IATA Lithium Ion Batteries (PI 967 Section II)

### 14.3 Transport hazard class(es)

Transport by land according to ADR/RID 9

Inland navigation (ADN) 9

Marine transport in accordance with IMDG 9

Air transport in accordance with IATA 9

### 14.4 Packing group

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

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#### 14.5 Environmental hazards

Transport by land according to ADR/RID no

Inland navigation (ADN) no

Marine transport in accordance with IMDG no

Air transport in accordance with IATA no

#### 14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

#### 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

not applicable

### SECTION 15: Regulatory information

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

**EEC-REGULATIONS** 1991/689 (2001/118); 2010/75; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008; 75/324/EEC (2016/2037/EC); (EU) 2015/830; (EU) 2016/131; (EU) 517/2014

**TRANSPORT-REGULATIONS** ADR (2019); IMDG-Code (2019, 39. Amdt.); IATA-DGR (2019)

**NATIONAL REGULATIONS (GB):** EH40/2005 Workplace exposure limits (Second edition, published December 2011).

- Observe employment restrictions for people none

- VOC (2010/75/CE) not applicable

#### 15.2 Chemical safety assessment

### SECTION 16: Other information

#### 16.1 Hazard statements (SECTION 03)

H373 May cause damage to organs through prolonged or repeated exposure.  
H302 Harmful if swallowed.  
H319 Causes serious eye irritation.  
H372 Causes damage to organs through prolonged or repeated exposure.  
H318 Causes serious eye damage.  
H314 Causes severe skin burns and eye damage.  
H301 Toxic if swallowed.



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## 16.2 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route  
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses  
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure  
ATE = acute toxicity estimate  
CAS = Chemical Abstracts Service  
CLP = Classification, Labelling and Packaging  
DMEL = Derived Minimum Effect Level  
DNEL = Derived No Effect Level  
EC50 = Median effective concentration  
ECB = European Chemicals Bureau  
EEC = European Economic Community  
EINECS = European Inventory of Existing Commercial Chemical Substances  
ELINCS = European List of Notified Chemical Substances  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
IC50 = Inhibition concentration, 50%  
IMDG = International Maritime Code for Dangerous Goods  
IUCLID = International Uniform Chemical Information Database  
LC50 = Lethal concentration, 50%  
LD50 = Median lethal dose  
LC0 = lethal concentration, 0%  
LOAEL = lowest-observed-adverse-effect level  
MARPOL = International Convention for the Prevention of Marine Pollution from Ships  
NOAEL = No Observed Adverse Effect Level  
NOEC = No Observed Effect Concentration  
PBT = Persistent, Bioaccumulative and Toxic substance  
PNEC = Predicted No-Effect Concentration  
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals  
STP = Sewage Treatment Plant  
TLV@/TWA = Threshold limit value – time-weighted average  
TLV@STEL = Threshold limit value – short-time exposure limit  
VOC = Volatile Organic Compounds  
vPvB = very Persistent and very Bioaccumulative

## 16.3 Other information

### Classification procedure

Skin Corr. 1A: H314 Causes severe skin burns and eye damage. (Calculation method)  
Eye Dam. 1: H318 Causes serious eye damage. (Calculation method)

### Modified position

none



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