



Li-Ion Batteries <100 Wh

Product Safety Information Sheet

A safety data sheet is not required for this product. This Product Safety Information Sheet has been created on a voluntary basis
Issue date: 11/11/2024 Revision date: 11/11/2024 Supersedes: 17/04/2024 Version: 7.22

SECTION 1: Identification

1.1. GHS Product identifier

| | |
|--------------|--------------------------|
| Product form | Article |
| Product name | Li-Ion Batteries <100 Wh |
| UN-No. (ADR) | 3480 |
| Product code | BU ET&A |

1.2. Other means of identification

| | |
|-------------------------------|--|
| Other means of identification | Hilti B 7/1.5 Li-Ion (01), Hilti B 7/2.0 Li-Ion (01), Hilti B 7/2.5 Li-Ion (01), Hilti B 12/2.6 Li-Ion (01), Hilti B 12/4.0 Li-Ion (01), Hilti B 12-30 Li-Ion (01), Hilti B 12-55 Li-Ion (01), Hilti B 14/1.6 Li-Ion (01), Hilti B 14/2.6 Li-Ion (01), Hilti B 14/3.3 Li-Ion (01), Hilti B 14/5.2 Li-Ion (01), Hilti B 18/1.6 Li-Ion (01), Hilti B 18/2.6 Li-Ion (01), Hilti B 18/2.6 Li-Ion (02), Hilti B 18/3.3 Li-Ion (01), Hilti B 22/1.6 Li-Ion (01), Hilti B 22/2.6 Li-Ion (01), Hilti B 22/2.6 Li-Ion (02), Hilti B 22/3.0 Li-Ion (01), Hilti B 22/3.3 Li-Ion (01), Hilti B 22/4.0 Li-Ion (01), Hilti B 36/2.4 Li-Ion (01), Hilti B 36/2.6 Li-Ion (02), Hilti B 144/2.6 Li-Ion (01), Hilti B 22-55 Li-Ion (01), Hilti B 22-85 Li-Ion (01), Hilti B 22-100 Li-Ion (01) |
|-------------------------------|--|

1.3. Recommended use of the chemical and restrictions on use

| | |
|-----------------------------------|--|
| Recommended uses and restrictions | For professional use only |
| Recommended use | Rechargeable Lithium Ion battery for power tools |

1.4. Supplier's details

| | |
|--|---|
| Supplier Hilti Qatar W.L.L. Souq Al Rawda Salwa Road P.O. Box 24097 QA Doha Ad Dawḥah Qatar T +974 4406 3600, F +974 4406 3669 QA.info@hilti.com | Department issuing data specification sheet Hilti AG Feldkircherstraße 100 FL 9494 Schaan Liechtenstein T +423 234 2111 product.compliance-power.tools@hilti.com |
|--|---|

1.5. Emergency phone number

| | |
|------------------|---|
| Emergency number | Emergency CONTACT (24-Hour-Number): GBK GmbH Global Regulatory Compliance +49 (0)6132-84463 +974 4406 3600 |
|------------------|---|

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification according to the United Nations GHS
Not classified

2.2. GHS Label elements, including precautionary statements

Labelling according to the United Nations GHS
No labelling applicable

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2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification

For the battery chemical materials are stored in a hermetically sealed metal case, designed to withstand temperatures and pressures encountered during normal use. As a result, during normal use there is no physical danger of ignition or explosion and chemical danger of hazardous materials leakage.

It may cause heat generation or electrolyte leakage if battery terminals contact with other metals. Electrolyte is flammable. In case of electrolyte leakage move the battery from fire immediately.

However if exposed to a fire, added mechanical shocks, decomposed, added electric stress by miss-use, the gas release vent will be operated. The battery case will be broken at the extreme, hazardous materials may be released.

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

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Comments

Lithium Ion rechargeable battery pack:

| Name/Type | Energy content (Wh) |
|-------------------------|---------------------|
| B 7 / 1.5 Li-Ion (01) | 10,80 |
| B 7 / 2.0 Li-Ion (01) | 14,40 |
| B 7 / 2.5 Li-Ion (01) | 18,00 |
| B 12 / 2.6 Li-Ion (01) | 28,10 |
| B 12 / 4.0 Li-Ion (01) | 42,66 |
| B 12-30 Li-Ion (01) | 27,00 / 28,10 |
| B 12-55 Li-Ion (01) | 54,00 |
| B 14 / 1.6 Li-Ion (01) | 23,00 |
| B 14 / 2.6 Li-Ion (01) | 36,00 |
| B 14 / 3.3 Li-Ion (01) | 48,00 |
| B 14 / 5.2 Li-Ion (01) | 73,40 |
| B 18 / 1.6 Li-Ion (01) | 34,60 |
| B 18 / 2.6 Li-Ion (01) | 56,20 |
| B 18 / 2.6 Li-Ion (02) | 56,20 |
| B 18 / 3.3 Li-Ion (01) | 71,30 |
| B 22 / 1.6 Li-Ion (01) | 34,60 |
| B 22 / 2.6 Li-Ion (01) | 56,20 |
| B 22 / 2.6 Li-Ion (02) | 56,20 |
| B 22 / 3.0 Li-Ion (01) | 64,80 |
| B 22 / 3.3 Li-Ion (01) | 71,30 |
| B 22 / 4.0 Li-Ion (01) | 86,40 |
| B 36 / 2.6 Li-Ion (01) | 93,60 |
| B 36 / 2.6 Li-Ion (02) | 93,60 |
| B 144 / 2.6 Li-Ion (01) | 37,44 |
| B 22-55 Li-Ion (01) | 54,00 |
| B 22-85 Li-Ion (01) | 85,32 |
| B 22-100 Li-Ion (01) | 97,2 |

This product contains a positive electrode (Lithium cobalt oxide (CAS-No. 12190-79-3)), a negative electrode (graphite (CAS-No. 7782-42-5)) and electrolyte (ethylene carbonate (CAS-No. 96-49-1), diethyl carbonate (CAS-No. 105-58-8) and lithium hexafluorophosphate (CAS-No. 21324-40-3)).

The physical form of the product, however, precludes exposure to workers under normal conditions of use.

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This mixture does not contain any substances to be mentioned according to the applicable regulations

SECTION 4: First-aid measures

4.1. Description of necessary first-aid measures

| | |
|---------------------------------------|--|
| First-aid measures general | If the electrolyte is leaking out of the battery pack, the following measures have to be taken. |
| First-aid measures after inhalation | Allow affected person to breathe fresh air. Allow the victim to rest. |
| First-aid measures after skin contact | Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation or rash occurs: Get medical advice/attention. |
| First-aid measures after eye contact | Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists. |
| First-aid measures after ingestion | Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. |

4.2. Most important symptoms/effects, acute and delayed

| | |
|---|--|
| Symptoms/effects | Not expected to present a significant hazard under anticipated conditions of normal use. |
| Potential adverse human health effects and symptoms | This product contains an organic electrolyte. If the electrolyte is leaking out of the battery pack, the following effects are known when getting into contact: Irritation: severely irritant to eyes. Irritation: may cause irritation to the respiratory system. |

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

| | |
|--------------------------------|---|
| Suitable extinguishing media | Cool batteries and accumulators with water jet. In case of fire in the surroundings: Use extinguishing agent suitable for surrounding fire. |
| Unsuitable extinguishing media | No additional information available. |

5.2. Specific hazards arising from the chemical

| | |
|--|---|
| Hazardous decomposition products in case of fire | Formation of toxic gases is possible during heating or in case of fire. |
|--|---|

5.3. Special protective actions for fire-fighters

| | |
|--------------------------------|---|
| Firefighting instructions | Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment. |
| Protection during firefighting | Do not enter fire area without proper protective equipment, including respiratory protection. |

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

| | |
|------------------|--|
| General measures | No flames, no sparks. Eliminate all sources of ignition. Isolate from fire, if possible, without unnecessary risk. |
|------------------|--|

6.1.1. For non-emergency personnel

| | |
|----------------------|--|
| Protective equipment | Wear protective gloves. protective clothing. Safety goggles. Gas mask. |
| Emergency procedures | Evacuate unnecessary personnel. |

6.1.2. For emergency responders

| | |
|----------------------|--|
| Protective equipment | Equip cleanup crew with proper protection. |
| Emergency procedures | Ventilate area. |

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and materials for containment and cleaning up

| | |
|-------------------------|---|
| Methods for cleaning up | Take up liquid spill into absorbent material. |
|-------------------------|---|

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Other information

Dispose of materials or solid residues at an authorized site.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling

Do not soak in water or seawater.
Do not expose to strong oxidizers.
Do not give a strong mechanical shock or fling.
Never disassemble, modify or deform.
Do not connect the positive terminal to the negative terminal with electrically conductive material.
Use only the chargers / electric tools specified by Hilti to charge or discharge the battery.

Hygiene measures

Do not throw into fire or expose to high temperatures (>85 °C).
Do not connect the positive terminal to the negative terminal with electrically conductive material.

Additional hazards when processed

Always wash hands after handling the product.
Normal use of this product shall imply use in accordance with the instructions on the packaging and in line with the expectations of a professional user.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

Avoid direct sunlight, high temperature, high humidity.
Store in a cool place (temperature: -20 °C ~ 40 °C, humidity: 45 - 85%).
Store in a well-ventilated place.
Strong bases. Strong acids.
Sources of ignition. Direct sunlight.
Store away from water.
Do not store together with electrically conductive materials.

Storage area

Incompatible products

Incompatible materials

Information on mixed storage

The accu-pack should be stored at 30 to 50% of the charging capacity.
Avoid storing in places where it is exposed to static electricity.
-20 – 40 °C

Storage temperature

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls

If the electrolyte is leaking out of the battery pack, the following measures have to be taken.

Other information

Do not eat, drink or smoke during use.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection

Wear protective gloves. Wear protective gloves.

| Type | Material | Permeation | Thickness (mm) | Penetration | Standard |
|-------------------|----------------------|-------------------|----------------|-------------|------------|
| Disposable gloves | Nitrile rubber (NBR) | 6 (> 480 minutes) | 0,12 | | EN ISO 374 |

Eye protection

Chemical goggles or safety glasses

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Personal protective equipment symbol(s)



8.4. Exposure limit values for the other components

No additional information available

SECTION 9: Physical and chemical properties

9.1. Basic physical and chemical properties

| | |
|---|----------------|
| Physical state | Solid |
| Appearance | plastic case |
| Colour | red. Black. |
| Odour | odourless. |
| Odour threshold | Not available |
| Melting point | Not available |
| Freezing point | Not available |
| Boiling point | Not available |
| Flammability | Non flammable. |
| Lower explosion limit | Not applicable |
| Upper explosion limit | Not applicable |
| Flash point | Not applicable |
| Auto-ignition temperature | Not applicable |
| Decomposition temperature | Not available |
| pH | Not available |
| pH solution | Not available |
| Viscosity, kinematic (calculated value) (40 °C) | Not applicable |
| Partition coefficient n-octanol/water (Log Kow) | Not available |
| Vapour pressure | Not available |
| Vapour pressure at 50°C | Not available |
| Density | Not available |
| Relative density | Not available |
| Relative vapour density at 20°C | Not applicable |
| Solubility | Not available |
| Particle size | Not available |

9.2. Data relevant with regard to physical hazard classes (supplemental)

| | |
|----------------------|---|
| Explosive properties | Risk of explosion by shock, friction, fire or other sources of ignition |
|----------------------|---|

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Heating may cause a fire or explosion.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Water, humidity.

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10.5. Incompatible materials

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

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

| | |
|---|--|
| Acute toxicity (oral) | Not classified |
| Acute toxicity (dermal) | Not classified |
| Acute toxicity (inhalation) | Not classified |
| Skin corrosion/irritation | Not classified |
| Serious eye damage/irritation | Not classified |
| Respiratory or skin sensitisation | Not classified |
| Germ cell mutagenicity | Not classified |
| Carcinogenicity | Not classified |
| Reproductive toxicity | Not classified |
| STOT-single exposure | Not classified |
| STOT-repeated exposure | Not classified |
| Aspiration hazard | Not classified |
| Potential adverse human health effects and symptoms | This product contains an organic electrolyte. If the electrolyte is leaking out of the battery pack, the following effects are known when getting into contact: Irritation: severely irritant to eyes. Irritation: may cause irritation to the respiratory system. |
| 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

12.1. Toxicity

| | |
|---|----------------|
| Hazardous to the aquatic environment, short-term (acute) | Not classified |
| Hazardous to the aquatic environment, long-term (chronic) | Not classified |

12.2. Persistence and degradability

| Li-Ion Batteries <100 Wh | |
|-------------------------------|------------------|
| Persistence and degradability | Not established. |

12.3. Bioaccumulative potential

| Li-Ion Batteries <100 Wh | |
|---------------------------|------------------|
| Bioaccumulative potential | Not established. |

12.4. Mobility in soil

| Li-Ion Batteries <100 Wh | |
|--------------------------|-------------------------------------|
| Mobility in soil | No additional information available |

12.5. Other adverse effects

| | |
|-----------------------|---|
| Ozone | Not classified |
| Other adverse effects | No additional information available |
| Other information | Do not allow battery packs to penetrate the soil. The battery cell may corrode and electrolyte may leak. |

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SECTION 13: Disposal considerations

13.1. Disposal methods

| | |
|--|---|
| Product/Packaging disposal recommendations | Dispose in a safe manner in accordance with local/national regulations. Refer to manufacturer/supplier for information on recovery/recycling. |
| Ecological information | Avoid release to the environment. |

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID /

| ADR | IMDG | IATA | RID |
|---|---|--|---|
| 14.1. UN number or ID number | | | |
| UN 3480 | UN 3480 | UN 3480 | UN 3480 |
| 14.2. UN proper shipping name | | | |
| LITHIUM ION BATTERIES | LITHIUM ION BATTERIES | Lithium ion batteries | LITHIUM ION BATTERIES |
| Transport document description | | | |
| UN 3480 LITHIUM ION BATTERIES, 9, (E) | UN 3480 LITHIUM ION BATTERIES, 9 | UN 3480 Lithium ion batteries, 9 | UN 3480 LITHIUM ION BATTERIES, 9 |
| 14.3. Transport hazard class(es) | | | |
| 9 | 9 | 9 | 9 |
|  |  |  |  |
| 14.4. Packing group | | | |
| Not applicable | Not applicable | Not applicable | Not applicable |
| 14.5. Environmental hazards | | | |
| Dangerous for the environment: No | Dangerous for the environment: No Marine pollutant: No | Dangerous for the environment: No | Dangerous for the environment: No |
| No supplementary information available | | | |

14.6. Special precautions for user

Overland transport

| | |
|-------------------------------|--|
| Classification code (ADR) | M4 |
| Special provisions (ADR) | 188, 230, 310, 348, 376, 377, 387, 636 |
| Limited quantities (ADR) | 0 |
| Packing instructions (ADR) | P903, P908, P909, P910, P911, LP903, LP904, LP905, LP906 |
| Transport category (ADR) | 2 |
| Tunnel restriction code (ADR) | E |

Transport by sea

| | |
|-----------------------------|--|
| Special provisions (IMDG) | 188, 230, 310, 348, 376, 377, 384, 387 |
| Limited quantities (IMDG) | 0 |
| Packing instructions (IMDG) | P903, P908, P909, P910, P911, LP903, LP904, LP905, LP906 |
| EmS-No. (Fire) | F-A |
| EmS-No. (Spillage) | S-I |
| Stowage category (IMDG) | A |
| Stowage and handling (IMDG) | SW19 |



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| | |
|---------------------------------|--|
| MFAG-No | 147 |
| Air transport | |
| PCA packing instructions (IATA) | Forbidden |
| PCA max net quantity (IATA) | Forbidden |
| CAO packing instructions (IATA) | See 965 |
| Special provisions (IATA) | A88, A99, A154, A164, A183, A201, A213, A331, A334, A802 |
| Rail transport | |
| Special provisions (RID) | 188, 230, 310, 348, _376, 377, 387, 636 |
| Limited quantities (RID) | 0 |
| Packing instructions (RID) | P903, 908, 909, P910, P911, LP903, LP904, LP905, LP906 |

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations specific for the product in question

No additional information available

SECTION 16: Other information

A safety data sheet is not required for this product. This Product Safety Information Sheet has been created on a voluntary basis<ReplaceEmptyCellBy_NO_RELEVANT_DATA>

| | |
|---------------|------------|
| Issue date | 11/11/2024 |
| Revision date | 11/11/2024 |
| Supersedes | 4/17/2024 |

| Section | Changed item | Change | Comments |
|---------|--------------|--------|----------|
| 1.1 | Product name | Added | |
| 3 | Comments | Added | |

SDS_UN_Hilti

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.