

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: 5.17

SECTION 1: Product identifier

1.1. GHS Product identifier

Product form	Article
Product name	Li-Ion Batteries >100 Wh
Product code	BU ET&A

1.2. Other means of identification

Other means of identification	Hilti B 18 / 5.2 Li-Ion (01), Hilti B 22 / 5.2 Li-Ion (01), Hilti B 22 / 8.0 Li-Ion (01), Hilti B 36 / 3.0 Li-Ion (01), Hilti B 36 / 3.3 Li-Ion (01), Hilti B 36 / 3.9 Li-Ion (01), Hilti B 36 / 5.2 Li-Ion (01), Hilti B 36 / 6.0 Li-Ion (01), Hilti B 36 / 9.0 Li-Ion (01), Hilti B 22-110 Li-Ion (01), Hilti B22-170 Li-Ion (01), Hilti B22-195 Li-Ion (01), Hilti B22-255 Li-Ion (01), Hilti B22-290 Li-Ion (01)
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1.3. Recommended use of the chemical and restrictions on use

Recommended use	Rechargeable Lithium Ion battery for power tools
Restrictions on use	For professional use only

1.4. Details of manufacturer or importer

Supplier

Hilti (Aust.) Pty. Ltd.
Level 5, 1G Homebush Bay Drive
P.O. Box 3217
Rhodes NSW 2138
Australia
T +61 131 292 - F +61 1300 135 042
serviceaustralia@hilti.com

Department issuing data specification sheet:

Hilti AG
Feldkircherstraße 100
Schaan 9494
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
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Country	Organisation/Company	Address	Emergency number	Comment
Australia	NSW Poisons Information Centre The Children's Hospital at Westmead	Locked Bag 4001 NSW 2145	13 11 26	

SECTION 2: Hazard identification

2.1. Classification of the hazardous chemical

Classification according to the model Work Health and Safety Regulations (WHS Regulations)

Not classified

2.2. GHS Label elements, including precautionary statements

No labelling applicable

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2.3. Other hazards which do not result in classification

Other hazards which do not result in 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 and information on ingredients

Comments	<p>Lithium Ion rechargeable battery pack:</p> <table border="0"> <thead> <tr> <th style="text-align: left;">Name/Type</th> <th style="text-align: left;">Energy content (Wh).</th> </tr> </thead> <tbody> <tr><td>Hilti B 18 / 5.2 Li-Ion (01)</td><td>112,00</td></tr> <tr><td>Hilti B 22 / 5.2 Li-Ion (01)</td><td>112,00</td></tr> <tr><td>Hilti B 22 / 8.0 Li-Ion (01)</td><td>171,08</td></tr> <tr><td>Hilti B 36 / 3.0 Li-Ion (01)</td><td>108,00</td></tr> <tr><td>Hilti B 36 / 3.3 Li-Ion (01)</td><td>118,80</td></tr> <tr><td>Hilti B 36 / 3.9 Li-Ion (01)</td><td>140,40</td></tr> <tr><td>Hilti B 36 / 5.2 Li-Ion (01)</td><td>187,20</td></tr> <tr><td>Hilti B 36 / 6.0 Li-Ion (01)</td><td>216,00</td></tr> <tr><td>Hilti B 36 / 9.0 Li-Ion (01)</td><td>316,80</td></tr> <tr><td>Hilti B 22-110 Li-Ion (01)</td><td>110,16</td></tr> <tr><td>Hilti B 22-170 Li-Ion (01)</td><td>170,65</td></tr> <tr><td>Hilti B 22-195 Li-Ion (01)</td><td>194,4</td></tr> <tr><td>Hilti B 22-255 Li-Ion (01)</td><td>255,96</td></tr> <tr><td>Hilti B 22-290 Li-Ion (01)</td><td>291,6.</td></tr> </tbody> </table> <p>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)).</p> <p>The physical form of the product, however, precludes exposure to workers under normal conditions of use.</p>	Name/Type	Energy content (Wh).	Hilti B 18 / 5.2 Li-Ion (01)	112,00	Hilti B 22 / 5.2 Li-Ion (01)	112,00	Hilti B 22 / 8.0 Li-Ion (01)	171,08	Hilti B 36 / 3.0 Li-Ion (01)	108,00	Hilti B 36 / 3.3 Li-Ion (01)	118,80	Hilti B 36 / 3.9 Li-Ion (01)	140,40	Hilti B 36 / 5.2 Li-Ion (01)	187,20	Hilti B 36 / 6.0 Li-Ion (01)	216,00	Hilti B 36 / 9.0 Li-Ion (01)	316,80	Hilti B 22-110 Li-Ion (01)	110,16	Hilti B 22-170 Li-Ion (01)	170,65	Hilti B 22-195 Li-Ion (01)	194,4	Hilti B 22-255 Li-Ion (01)	255,96	Hilti B 22-290 Li-Ion (01)	291,6.
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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. Symptoms caused by exposure

Symptoms/effects	Not expected to present a significant hazard under anticipated conditions of normal use.
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4.3. Medical attention and special treatment

Other medical advice or treatment Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. 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

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

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

5.3. Special protective equipment and precautions 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. No flames, no sparks. Eliminate all sources of ignition. Isolate from fire, if possible, without unnecessary risk.

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.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed 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.

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.

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.

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Hygiene measures Always wash hands after handling the product.

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%).

Incompatible products Strong bases. Strong acids.

Incompatible materials Sources of ignition. Direct sunlight.

Storage temperature -20 – 40 °C

Information on mixed storage Store away from water.
Do not store together with electrically conductive materials.

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.

Storage area Store in a well-ventilated place.

SECTION 8: Exposure controls and personal protection

8.1. Control parameters - exposure standards

No additional information available

8.2. Biological Monitoring

No additional information available

8.3. Engineering controls

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

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

Personal protective equipment Avoid all unnecessary exposure.

Hand protection 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

Respiratory protection Wear appropriate mask

Personal protective equipment symbol(s)



Other information Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

Physical state Solid

Appearance plastic case.

Colour red Black

Odour odourless

Odour threshold No data available

pH No data available

pH solution No data available

Relative evaporation rate (butylacetate=1) No data available

Melting point / Freezing point No data available

Boiling point No data available

Flash point No data available

Auto-ignition temperature No data available

Flammability No data available

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Vapour pressure	No data available
Relative density	No data available
Density	No data available
Solubility	No data available
Partition coefficient n-octanol/water (Log Pow)	No data available
Explosive properties	Risk of explosion by shock, friction, fire or other sources of ignition.
Explosive limits	No data available
Minimum ignition energy	No data available
Fat solubility	No data available

SECTION 10: Stability and reactivity

Reactivity	No additional information available
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	Heating may cause a fire or explosion.
Conditions to avoid	Direct sunlight. Extremely high or low temperatures. Water, humidity.
Incompatible materials	Conductive materials, water, seawater, strong oxidizers and strong acids.
Hazardous decomposition products	fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

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

According to the National Code of Practice for the Preparation of Material Safety Data Sheets, Environmental classification information is not mandatory. Information relevant for GHS classification is available on request

12.1. Ecotoxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified
Other information	: Do not allow battery packs to penetrate the soil. The battery cell may corrode and electrolyte may leak.

12.2. Persistence and degradability

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Persistence and degradability	Not established.

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12.3. Bioaccumulative potential

Li-Ion Batteries >100 Wh	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Ozone : Not classified
 Other adverse effects : No additional information available

Li-Ion Batteries >100 Wh	
Fluorinated greenhouse gases	False

SECTION 13: Disposal considerations

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) : 230, 377, 376, 636, 310, 348, 387

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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)	230, 376, 377, 310, 348, 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
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, A213, A331, A802

Rail transport

Special provisions (RID)	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

No additional information available

15.2. International agreements

No additional information available

SECTION 16: Other information

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Indication of changes			
Section	Changed item	Change	Comments
1.2	Hazardous decomposition products	Added	
3	Comments	Added	

Revision date 11/11/2024

Classification	
Not classified	

SDS_AU_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.