

# 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: Identification

#### 1.1 Product identifier

Product name	Li-Ion Batteries >100 Wh
Product form	Article
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 (New Zealand) Ltd.  
Level 1, Building B 600 South Road Ellerslie  
Auckland 1051  
New Zealand  
T +64 9 571 9995  
800 444 584 toll free - F +64 9526 7780  
[servicenz@hilti.com](mailto:servicenz@hilti.com)

##### Department issuing data specification sheet

Hilti AG  
Feldkircherstraße 100  
Schaan 9494  
Liechtenstein  
T +423 234 2111  
[product.compliance-power.tools@hilti.com](mailto:product.compliance-power.tools@hilti.com)

#### 1.5. Emergency phone number

Emergency number	GBK GmbH Global Regulatory Compliance +49 (0)6132-84463
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Country	Organisation/Company	Address	Emergency number
New Zealand	National Poisons Centre		0800 764 766

### SECTION 2: Hazard identification

#### 2.1. Classification of the hazardous chemical

Classification according to the Environmental Protection Authority notices (EPA Hazardous Substances and New Organisms Act 1996)

Not classified

#### 2.2. GHS Label elements, including precautionary statements

##### GHS NZ labelling

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

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Comments

Lithium Ion rechargeable battery pack:

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.

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.

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.

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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.

### 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.

EAC code 4W - 4W

## 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.

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**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.

**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.  
 Store in a well-ventilated place.

**Storage area**

**SECTION 8: Exposure controls and personal protection**

**8.1. Control parameters - exposure standards**

No additional information available

**Exposure limit values for the other components**

**Additional information**

No technical measures are necessary during normal use. In case of leakage of substances contained within the cell, the information below may be useful.

**8.2. Monitoring methods**

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.

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### SECTION 9: Physical and chemical properties

Physical state	Solid
Appearance	plastic case.
Colour	red Black
Odour	odourless
Odour threshold	No additional information available
pH	No additional information available
Evaporation rate	No additional information available
Relative evaporation rate (butylacetate=1)	No data available
Melting point / Freezing point	No additional information available
Boiling point	No data available
Flash point	No data available
Auto-ignition temperature	No data available
Flammability	Non flammable.
Vapour pressure	No additional information available
Relative density	No additional information available
Density	No additional information available
Solubility	No additional information available
Partition coefficient n-octanol/water (Log Pow)	No data available
Viscosity, dynamic	No data available
Explosive properties	Risk of explosion by shock, friction, fire or other sources of ignition.
Explosive limits	No additional information available
Minimum ignition energy	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

#### 11.1. Toxicity

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.

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### SECTION 12: Ecological information

#### 12.1. Ecotoxicity

Hazardous to the aquatic environment, short-term (acute)	Not classified
Hazardous to the aquatic environment, long-term (chronic)	Not classified
Soil toxicity	Not classified
Terrestrial vertebrate toxicity	Not classified
Terrestrial invertebrate toxicity	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.

#### 12.3. Bioaccumulative potential

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Bioaccumulative potential	Not established.

#### 12.4. Mobility in soil

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Mobility in soil	No additional information available

#### 12.5. Other adverse effects

Ozone	Not classified
Other adverse effects	No additional information available

### 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
<b>14.1. UN number or ID number</b>			
UN 3480	UN 3480	UN 3480	UN 3480
<b>14.2. UN proper shipping name</b>			
LITHIUM ION BATTERIES	LITHIUM ION BATTERIES	Lithium ion batteries	LITHIUM ION BATTERIES
<b>Transport document description</b>			
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
<b>14.3. Transport hazard class(es)</b>			
9	9	9	9

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ADR	IMDG	IATA	RID
<b>14.4. Packing group</b>			
Not applicable	Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>			
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
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
EAC code	4W

#### 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 specific for the product in question

No additional information available

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### 15.2. Chemical safety assessment

No additional information available

### SECTION 16: Other information

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Indication of changes			
Section	Changed item	Change	Comments
1	Product name	Added	
3	Comments	Added	

SDS\_NZ\_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.