

# **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: 10/24/2025 Revision date: 10/24/2025 Supersedes: 11/11/2024 Version: 5.19

# **SECTION 1: Identification**

#### 1.1. 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-lon (01), Hilti B 22 / 5.2 Li-lon (01), Hilti B 22 / 8.0 Li-lon (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 (10), Hilti B 36 / 9.0

(01)

#### 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. Supplier's details

Supplier Department issuing data specification sheet

Hilti (Canada) Corp. Hilti AG

2201 Bristol CircleFeldkircher Strasse 100Suite 700FL 9494 SchaanCA L6H 0J8 Oakville, OntarioLiechtenstein

 Canada
 T +423 234 2111

 T +1905 8139200
 product.compliance-power.tools@hilti.com

1-800-363-4458 toll free, F +1 905 813 9009

ca-sales@hilti.com

# 1.5. Emergency telephone number

Emergency number Emergency CONTACT (24-Hour-Number)

GBK/Infotrac ID 101022 (USA domestic) 1 800 535 5053 or international (001) 352 323 3500

## **SECTION 2: Hazard identification**

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

Classification (GHS CA)

Not classified

## 2.2. GHS Label elements, including precautionary statements

#### **GHS CA labelling**

No labelling applicable

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#### 2.3. Other hazards

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 breaked 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 rechercheable battery pack:

Name/Type Energy content (Wh) Hilti B 18 / 5.2 Li-lon (01) 112,00 Hilti B 22 / 5.2 Li-lon (01) 112,00 Hilti B 22 / 8.0 Li-lon (01) 171,08 Hilti B 36 / 3.0 Li-lon (01) 108,00 Hilti B 36 / 3.3 Li-lon (01) 118.80 Hilti B 36 / 3.9 Li-Ion (01) 140,40 Hilti B 36 / 5.2 Li-lon (01) 187,20 Hilti B 36 / 6.0 Li-lon (01) 216,00 Hilti B 36 / 9.0 Li-lon (01) 316,80 Hilti B 22-110 Li-lon (01) 110,16 Hilti B 22-170 Li-lon (01) 170.65 Hilti B 22-195 Li-Ion (01) 194.4 Hilti B 22-255 Li-lon (01) 255,96 Hilti B 22-260 Pouch (01) 251

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 criteria of schedule 1, item 3 of the Hazardous Products Regulations.

Hilti B 22-290 Li-Ion (01)

# **SECTION 4: First-aid measures**

## 4.1. Description of first aid measures

First-aid measures after inhalation
First-aid measures after skin contact

Allow affected person to breathe fresh air. Allow the victim to rest.

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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.

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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.

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

#### 4.2. Most important symptoms and 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 This product contains an organic electrolyte. If the electrolyte is leaking out of the battery pack, symptoms

the following effects are known when getting into contact: Irritation: severely irritant to eyes.

Irritation: may cause irritation to the respiratory system.

#### 4.3. Immediate medical attention and special treatment, if necessary

Other medical advice or treatment 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 hazardous product

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

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

unnecessary risk.

#### 6.2. Methods and materials for containment and cleaning up

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

Other information Dispose of materials or solid residues at an authorized site.

For further information refer to section 8: "Exposure controls/personal protection", For further information refer to section 13

# **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.

Do not throw into fire or expose to high temperatures (>85 °C).

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Hygiene measures Always wash hands after handling the product.

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.

#### 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

Storage area Store in a well-ventilated place.

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.

# **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters

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. Appropriate engineering controls

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

#### 8.3. Individual protection measures/Personal protective equipment

#### Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:						
Wear protective gloves.						
Туре	Material	Permeation	Thickness (mm)	Penetration		
Disposable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0,12			

## Eye protection:

Chemical goggles or safety glasses

#### Respiratory protection:

Wear appropriate mask

## Personal protective equipment symbol(s):





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#### Other information:

Do not eat, drink or smoke during use.

# **SECTION 9: Physical and chemical properties**

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

Physical state Solid Appearance plastic case. Colour red Black Odour odourless Odour threshold No data available No data available Relative evaporation rate (butylacetate=1) No data available No data available Relative evaporation rate (ether=1) No data available Melting point Freezing point No data available Boiling point No data available No data available Flash point Auto-ignition temperature No data available

No data available Decomposition temperature Flammability (solid, gas) Non flammable. Vapour pressure No data available Relative vapour density at 20°C No data available Relative density No data available Solubility No data available Partition coefficient n-octanol/water (Log Pow) No data available Viscosity, kinematic No data available

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

Explosive limits No data available

#### 9.2. Other information

No additional information 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. Hardening time: No additional information available

## **SECTION 11: Toxicological information**

## 11.1. Information on toxicological effects

Acute toxicity (oral)

Acute toxicity (dermal)

Acute toxicity (inhalation)

Skin corrosion/irritation

Serious eye damage/irritation

Respiratory or skin sensitization

Not classified

Not classified

Not classified

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Germ cell mutagenicity Not classified Not classified Carcinogenicity 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.

Symptoms/effects Not expected to present a significant hazard under anticipated conditions of normal use. 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

Hazardous to the aquatic environment, long-term

(chronic)

Not classified

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

No additional information available

#### 12.5. Other adverse effects

Ozone Not classified

Other information Do not allow battery packs to penetrate the soil. The battery cell may corrode and electrolyte may leak.

# **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 waste information Avoid release to the environment.

## **SECTION 14: Transport information**

In accordance with TDG / DOT / IMDG / IATA

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TDG	DOT	IMDG	IATA			
14.1. UN number						
UN3480	3480	3480	3480			
14.2. Proper Shipping Name						
LITHIUM ION BATTERIES	Lithium ion batteries	LITHIUM ION BATTERIES	Lithium ion batteries			
14.3. Transport hazard class(es)						
9	9	9	9			
2						
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	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No			
No supplementary information available						

# 14.6. Special precautions for user

TDG

UN-No. (TDG) UN3480

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**TDG Special Provisions** 

- 34 (1) These Regulations, except for Part 1 (Coming into Force, Repeal, Interpretation, General Provisions and Special Cases) and Part 2 (Classification), do not apply to the handling, offering for transport or transporting of lithium cells and batteries on a road vehicle, a railway vehicle or a vessel on a domestic voyage if
- (a) for a lithium metal or lithium alloy cell, the lithium content is not more than 1 g, and, for a lithium-ion cell, the watt-hour rating is not more than 20 Wh;
- (b) for a lithium metal or lithium alloy battery, the aggregate lithium content is not more than 2 g, and for a lithium-ion battery, the watt-hour rating is not more than 100 Wh;
- (c) lithium ion batteries are marked with the watt-hour rating on the outside case, except for those manufactured before January 1, 2009;
- (d) each cell and battery type passes each of the tests set out in paragraph 2.43.1(2)(a) of Part 2 (Classification);
- (e) the cells and batteries are afforded protection against short circuit, including protection against contact with conductive materials within the same packaging that could lead to a short circuit:
- (f) the cells and batteries are packed in a means of containment that completely encloses the cells and batteries:
- (g) the gross mass of the cells and batteries does not exceed 30 kg, except when the cells and batteries are installed in or packed with equipment; and
- (h) the cells and batteries are packed in a means of containment capable of withstanding a 1.2 m drop test in any orientation without damage to the cells or batteries contained inside the means of containment, without the contents shifting so as to allow battery-to-battery or cell-to-cell, contact, and without release of contents.
- (2) Cells and batteries referred to in subsection (1) that are installed in equipment must, unless they are afforded equivalent protection by the equipment in which they are contained,
- (a) be afforded protection against damage and short circuit, including protection against contact with conductive materials within the same packaging that could lead to a short circuit;
- (b) subject to subsection (3), be fitted to prevent accidental activation; and
- (c) be packed in a means of containment designed, constructed, filled, closed, secured and maintained so that under normal conditions of transport, including handling, there will be no release of the dangerous goods that could endanger public safety.
- (3) Paragraph (2)(b) does not apply to cells and batteries installed in devices that are intentionally active during transport such as radio frequency identification transmitters, watches and sensors, and that are not capable of generating a dangerous evolution of heat.
- (4) Except for means of containment containing button cell batteries installed in equipment, including circuit boards, or no more than four cells installed in equipment or no more than two batteries installed in equipment, each means of containment must be marked with the appropriate lithium battery mark in accordance with section 4.24.
- (5) Despite subsection (4), except for means of containment containing button cell batteries installed in equipment, including circuit boards, or no more than four cells installed in equipment or no more than two batteries installed in equipment, each means of containment may, until December 31, 2018, be marked with the following:
- (a) "lithium metal", "lithium métal", "lithium ion" or "lithium ionique", as appropriate;
- (b) an indication that the means of containment must be handled with care and that a flammability hazard exists if the means of containment is damaged;
- (c) an indication that special procedures must be followed in the event the means of containment is damaged, including inspection and repacking, if necessary; and
- (d) a telephone number to call for additional information, 123 (1) The testing requirements in subsection 38.3 of Part III of the Manual of Tests and Criteria do not apply to production runs consisting of not more than 100 cells and batteries or to pre-production prototypes of cells and batteries that are transported on a road vehicle, a railway vehicle or a vessel on a domestic voyage if
- (a) the cells or batteries are imported, offered for transport, handled or transported in accordance with Packing Instruction P910 of the UN Recommendations; and

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(2) Despite paragraph (1)(b), batteries that have a total mass of 12 kg or more and that have a strong, impact-resistant outer casing, or assemblies of them, may be packed in an outer means of containment or protective enclosure designed, constructed, filled, closed, secured and maintained so that under normal conditions of transport, including handling, there will be no

(b) the pre-production prototypes of cells and batteries are in transport for the purpose of testing.

- release of the dangerous goods that could endanger public safety. The batteries or battery assemblies must be protected from short-circuit, 137 - (1) This shipping name applies to lithium ion cells or batteries, and lithium metal cells or batteries, that are damaged or defective and do not conform to subsection 2.43.1(2) of Part 2 (Classification).
- (2) Lithium ion cells or batteries and lithium metal cells or batteries that are damaged or defective, include, but are not limited to, cells or batteries that have leaked or vented, or have sustained physical or mechanical damage, and cannot be diagnosed prior to transport, or that have been identified as being defective for safety reasons.
- (3) Lithium ion cells or batteries and lithium metal cells or batteries that are damaged or defective must be packed in accordance with Packing Instructions P908 or LP904 of the UN Recommendations, as applicable.
- (4) As applicable, the outer means of containment or the overpack must be marked legibly and visibly on a contrasting background, with the words "Damaged/Defective Lithium Ion Batteries", "piles au lithium ionique endommagées/défectueuses", "Damaged/Defective Lithium Metal Batteries" or "piles au lithium métal endommagées/défectueuses".
- (5) It is forbidden to transport lithium ion cells or batteries and lithium metal cells or batteries that are damaged or defective and that, under normal conditions of transport, are liable to disassemble rapidly, react dangerously, produce a flame or a dangerous evolution of heat, or produce a dangerous emission of toxic, corrosive or flammable gases or vapours.
- (6) It is forbidden to transport by aircraft lithium ion cells or batteries and lithium metal cells or batteries that are damaged or defective, 138 - (1) When transported for disposal or recycling, lithium ion cells or batteries and lithium metal cells or batteries, or equipment containing those
- (a) are not subject to subsection 2.43.1(2) of Part 2 (Classification);
- (b) must be packed in accordance with Packing Instructions P909 or LP904 of the UN Recommendations, as applicable, whether packed with or without non-lithium cells or batteries or equipment containing those cells or batteries;
- (c) must be in a means of containment or an overpack that is marked legibly and visibly on a contrasting background with the words "Lithium batteries for disposal", "Piles au lithium destinées à l'élimination", "Lithium batteries for recycling" or "Piles au lithium destinées au recyclage", as appropriate; and
- (d) are forbidden for transport by aircraft.
- (2) Damaged or defective cells and batteries must be offered for transport or transported under special provision 137,149 - These dangerous goods are forbidden for transport as cargo on a passenger aircraft, 159 - (1) Subject to subsection (2), the label to be used for these dangerous goods is the one illustrated under the heading for lithium batteries "Class 9, Lithium Batteries" in the appendix to Part 4 (Dangerous Goods Safety Marks).
- (2) The generic Class 9 label may be used until December 31, 2018.

E0

5 kg

Carrying Railway Vehicle Index Emergency Response Guide (ERG) Number

Passenger Carrying Road Vehicle or Passenger

**Explosive Limit and Limited Quantity Index** 

Excepted quantities (TDG)

147

DOT

UN-No. (DOT)

UN3480

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DOT Special Provisions (49 CFR 172.102)

388 - a. Lithium batteries containing both primary lithium metal cells and rechargeable lithium ion cells that are not designed to be externally charged, must meet the following conditions: i. The rechargeable lithium ion cells can only be charged from the primary lithium metal cells 422 - When labelling is required, the label to be used must be the label shown in §172.447. Labels conforming to requirements in place on December 31, 2016 may continue to be used until December 31, 2018. When a placard is displayed, the placard must be the placard shown in

A54 - Lithium batteries or lithium batteries contained or packed with equipment that exceed the maximum gross weight allowed by Column (9B) of the 172.101 Table may only be transported on cargo aircraft if approved by the Associate Administrator.

A100 - Primary (non-rechargeable) lithium batteries and cells are forbidden for transport aboard passenger carrying aircraft. Secondary (rechargeable) lithium batteries and cells are authorized aboard passenger carrying aircraft in packages that do not exceed a gross weight of 5 kg.

DOT Packaging Exceptions (49 CFR 173.xxx) 185 DOT Packaging Non Bulk (49 CFR 173.xxx) 185 DOT Packaging Bulk (49 CFR 173.xxx) 185 DOT Quantity Limitations Passenger aircraft/rail (49 Forbidden

CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49

CFR 175.75)

**DOT Vessel Stowage Location** 

A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a

passenger vessel.

**IMDG** 

Special provisions (IMDG) 230, 376, 377, 310, 348, 384, 387

Limited quantities (IMDG)

P903, P908, P909, P910, P911, LP903, LP904, LP905, LP906 Packing instructions (IMDG) EmS-No. (Fire) F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE

35 kg

EmS-No. (Spillage) S-I - SPILLAGE SCHEDULE India - FLAMMABLE SOLIDS (REPACKING POSSIBLE)

Stowage category (IMDG) SW19 Stowage and handling (IMDG) MFAG-No 147

ΙΔΤΔ

PCA packing instructions (IATA) Forbidden PCA max net quantity (IATA) Forbidden CAO packing instructions (IATA) See 965

A88, A99, A154, A164, A183, A213, A331, A802 Special provisions (IATA)

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

Not applicable

# **SECTION 15: Regulatory information**

## 15.1. National regulations

No additional information available

## **SECTION 16: Other information**

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Issue date 10-24-2025 Revision date 10-24-2025 Supersedes 11-11-2024

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Indication of changes					
Section	Changed item	Change	Comments		
1.1	Product name	Added			
3.2	Comments	Added			

#### Other information

No additional information available

SDS\_CA\_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.

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