

Lithium metal battery GX 120 / GX 3 kpl

Safety Data Sheet

according to the WHS Regulations

Issue date: 06/06/2023

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Version: 2.0

SECTION 1: Product identifier

1.1. GHS Product identifier

Product form	Article
Name	Lithium metal battery GX 120 / GX 3 kpl
Product code	BU Direct Fastening

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use Electrical batteries and accumulators

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 Entwicklungsgesellschaft mbH
Hiltistrasse 6
Kaufering 86916
Deutschland
T +49 8191 906310 - F +49 8191 90176310
df-hse@hilti.com

1.5. Emergency phone number

Emergency number Emergency contact (24 hours per day)
GBK GmbH Global Regulatory Compliance +49 (0)6132-84463

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

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

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Comments	This product contains a positive electrode (Lithium), a negative electrode (pyrite (FeS ₂)) and electrolyte (lithium iodide, organic solvents). 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. 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.
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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.
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5.2. Specific hazards arising from the chemical

Fire hazard	Water may not extinguish burning batteries but will cool adjacent batteries and control the spread of fire. Burning batteries will burn themselves out. Virtually all fires involving lithium batteries can be controlled by flooding with water. However, the contents of the battery will react with water and form hydrogen gas. In a confined space, hydrogen gas can form an explosive mixture. In this situation, smothering agents are recommended.
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.
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6.1.1. For non-emergency personnel

Emergency procedures	Evacuate unnecessary personnel.
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6.1.2. For emergency responders

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

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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
Reference to other sections (13)

Take up liquid spill into absorbent material.
For further information refer to section 13. Concerning personal protective equipment to use, see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed

This Batterie is manufactured in a charged state. It is not designed for recharging. Recharging can cause battery leakage or, in some case, high pressure rupture.

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. Charge within limits of 0°C to 45°C temperature.
Discharge within limits of -20°C to +60°C temperature.
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.

SECTION 8: Exposure controls and personal protection

8.1. Control parameters - exposure standards

No additional information available

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

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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	No data available
Colour	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
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 classifiedBased on available data, the classification criteria are not met
Acute toxicity (dermal)	Not classifiedBased on available data, the classification criteria are not met
Acute toxicity (inhalation)	Not classifiedBased on available data, the classification criteria are not met
Skin corrosion/irritation	Not classified (Based on available data, the classification criteria are not met)
Serious eye damage/irritation	Not classified (Based on available data, the classification criteria are not met)
Respiratory or skin sensitisation	Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	Not classified (Based on available data, the classification criteria are not met)

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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 (Based on available data, the classification criteria are not met)
Hazardous to the aquatic environment, long-term (chronic)	Not classified (Based on available data, the classification criteria are not met)
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

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Ozone	Not classified (Based on available data, the classification criteria are not met)
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.
Ecology - waste materials	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 3090	UN 3090	UN 3090	UN 3090
14.2. UN proper shipping name			
LITHIUM METAL BATTERIES	LITHIUM METAL BATTERIES	Lithium metal batteries	LITHIUM METAL BATTERIES
Transport document description			
UN 3090 LITHIUM METAL BATTERIES, 9A, (E)	UN 3090 LITHIUM METAL BATTERIES, 9	UN 3090 Lithium metal batteries, 9A	UN 3090 LITHIUM METAL BATTERIES, 9A
14.3. Transport hazard class(es)			
9A	9A	9A	9A

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ADR	IMDG	IATA	RID
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, 376, 377, 387, 636
Limited quantities (ADR)	0
Excepted quantities (ADR)	E0
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, 376, 377, 384, 387
Limited quantities (IMDG)	0
Excepted quantities (IMDG)	E0
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
Properties and observations (IMDG)	Electrical batteries containing lithium encased in a rigid metallic body. Lithium batteries may also be shipped in, or packed with, equipment. Electrical lithium batteries may cause fire due to an explosive rupture of the body caused by improper construction or reaction with contaminants.
MFAG-No	138

Air transport

PCA Excepted quantities (IATA)	E0
PCA Limited quantities (IATA)	Forbidden
PCA limited quantity max net quantity (IATA)	Forbidden
PCA packing instructions (IATA)	Forbidden
PCA max net quantity (IATA)	Forbidden
CAO packing instructions (IATA)	See 968
CAO max net quantity (IATA)	See 968
Special provisions (IATA)	A88, A99, A154, A164, A183, A201, A206, A213, A334, A802
ERG code (IATA)	12FZ

Rail transport

Classification code (RID)	M4
Special provisions (RID)	188, 230, 310, 376, 377, 387, 636
Limited quantities (RID)	0
Excepted quantities (RID)	E0
Packing instructions (RID)	P903, 908, 909, P910, P911, LP903, LP904, LP905, LP906

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Transport category (RID)	2
Colis express (express parcels) (RID)	CE2
Hazard identification number (RID)	90

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

15.2. International agreements

No additional information available

SECTION 16: Other information

Indication of changes:

General.

Revision date 06/06/2023

Classification	
Not classified	

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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.