

## **Product Safety Information Sheet**

A safety data sheet is not required for this product under Article 31 of REACH. This Product Safety Information Sheet has been created on a voluntary basis Issue date: 16/12/2022 Revision date: 16/12/2022 Supersedes version of: 22/06/2017 Version: 2.0

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

## 1.1. Product identifier

Product form Article

Name Lithium metal battery GX 120 / GX 3 kpl

Product code BU Direct Fastening

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

#### 1.2.1. Relevant identified uses

Use of the substance/mixture Electrical batteries and accumulators

## 1.2.2. Uses advised against

No additional information available

## 1.3. Details of the supplier of product safety information sheet

#### . ...

Supplier Hilti (Gt. Britain) Ltd.

1 Circle Square 3 Symphony Park

GB-M1 7FS Manchester

Great Britain

T +44 161 886 1000

0800 886 100 Toll-free - F +44 161 872 1240

gbsales@hilti.com

Department issuing data specification sheet

Hilti Entwicklungsgesellschaft mbH

Hiltistraße 6

DE-86916 Kaufering

Deutschland

T +49 8191 906876

anchor.hse@hilti.com

## 1.4. Emergency telephone number

Emergency number Schweizerisches Toxikologisches Informationszentrum – 24h Service

+41 44 251 51 51 (international)

+44 161 886 1000 0800 886 100 Toll-free

Country	Organisation/Company	Address	Emergency number	Comment
	NHS Direct (England and Wales) NHS 24 (Scotland)		111	

## **SECTION 2: Hazards identification**

## 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

## 2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

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.

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

## **SECTION 3: Composition/information on ingredients**

## 3.1. Substances

Not applicable

## 3.2. Mixtures

Comments

This product contains a positive electrode (Lithium), a negative electrode (pyrite (FeS2)) and electrolyte (lithium iodide, organic solvents).

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

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

followed by warm water rinse. If skin irritation or rash occurs: Get medical advice/attention.

Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness

This mixture does not contain any substances to be mentioned according to the criteria of section 3.2 of REACH Annex II

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

## 4.1. Description of first aid measures

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

Allow affected person to breathe fresh air. Allow the victim to rest. Remove affected clothing and wash all exposed skin area with mild soap and water,

First-aid measures after eye contact

persists. Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

First-aid measures after ingestion

## 4.2. Most important symptoms and effects, both acute and delayed

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

## 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.



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## **SECTION 5: Firefighting 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.

## 5.2. Special hazards arising from the substance or mixture

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 recomended.

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

#### 5.3. Advice for firefighters

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

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 material 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.

## 6.4. Reference to other sections

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

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.



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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.

## 7.3. Specific end use(s)

No additional information available

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

#### 8.1. Control parameters

## 8.1.1. National occupational exposure and biological limit values

No additional information available

## 8.1.2. Recommended monitoring procedures

No additional information available

## 8.1.3. Air contaminants formed

No additional information available

## 8.1.4. DNEL and PNEC

No additional information available

### 8.1.5. Control banding

No additional information available

## 8.2. Exposure controls

## 8.2.1. Appropriate engineering controls

## Appropriate engineering controls:

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

## 8.2.2. Personal protection equipment

## Personal protective equipment:

Avoid all unnecessary exposure.



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## Personal protective equipment symbol(s):





#### 8.2.2.1. Eye and face protection

## Eye protection:

Chemical goggles or safety glasses

#### 8.2.2.2. Skin protection

#### Hand protection:

Wear protective gloves.

Hand protection					
Туре	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0,12		EN ISO 374

#### 8.2.2.3. Respiratory protection

No additional information available

## 8.2.2.4. Thermal hazards

No additional information available

#### 8.2.3. Environmental exposure controls

#### Other information:

Do not eat, drink or smoke during use. No additional information available

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

## 9.1. Information on basic physical and chemical properties

Physical state Solid Colour Black. Odour Not available Odour threshold Not available Melting point Not available Freezing point Not available Not available Boiling point Flammability Not available

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

Lower explosion limit Not applicable Upper explosion limit Not applicable Flash point Not applicable Not applicable Auto-ignition temperature Decomposition temperature Not available Not available pН pH solution Not available Viscosity, kinematic Not applicable Solubility Not available Partition coefficient n-octanol/water (Log Kow) Not available Not available Vapour pressure Vapour pressure at 50°C Not available Not available Density



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Relative density Not available Relative vapour density at 20°C Not applicable Particle size Not available Particle size distribution Not available Particle shape Not available Not available Particle aspect ratio Particle aggregation state Not available Particle agglomeration state Not available Particle specific surface area Not available Particle dustiness Not available

#### 9.2. Other information

## 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

No additional information available

## **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.

#### 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 hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) Not classified (Based on available data, the classification criteria are not met) Not classified (Based on available data, the classification criteria are not met) Acute toxicity (dermal) Acute toxicity (inhalation) Not classified (Based on available data, the classification criteria are not met) Skin corrosion/irritation Not classified (Based on available data, the classification criteria are not met) 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 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) Not classified (Based on available data, the classification criteria are not met) STOT-repeated exposure Aspiration hazard Not classified (Based on available data, the classification criteria are not met)



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#### 11.2. Information on other hazards

#### 11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties

No additional information available

#### 11.2.2. Other information

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

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

Other information

Hazardous to the aquatic environment, short-term (acute)

Not classified (Based on available data, the classification criteria are not met)

Not classified (Based on available data, the classification criteria are not met)

Hazardous to the aquatic environment, long-term

(chronic)

## 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. Results of PBT and vPvB assessment

No additional information available

## 12.6. Endocrine disrupting properties

No additional information available

## 12.7. Other adverse effects

Additional information

Ecology - waste materials

HP Code

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

## **SECTION 13: Disposal considerations**

## 13.1. Waste treatment methods

European List of Waste (LoW) code

Product/Packaging disposal recommendations

Dispose in a safe manner in accordance with local/national regulations. Refer to

manufacturer/supplier for information on recovery/recycling.

Avoid release to the environment.

16 06 05 - other batteries and accumulators

20 01 34 - batteries and accumulators other than those mentioned in 20 01 33

HP4 - "Irritant - skin irritation and eye damage:" waste which on application can cause skin

irritation or damage to the eye.

## **SECTION 14: Transport information**

In accordance with ADR / IMDG / IATA / RID



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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
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 availa	able		

## 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) E

Packing instructions (ADR) P903, P908, P909, P910, P911, LP903, LP904, LP905, LP906

Transport category (ADR) 2
Tunnel restriction code (ADR) E
EAC code 4Y

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-AEmS-No. (Spillage)S-IStowage category (IMDG)AStowage 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



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PCA Limited quantities (IATA)

PCA limited quantity max net quantity (IATA)

PCA packing instructions (IATA)

PCA max net quantity (IATA)

CAO packing instructions (IATA)

CAO max net quantity (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) 12F2

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

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/legislation specific for the substance or mixture

## 15.1.1. EU-Regulations

## **REACH Annex XVII (Restriction List)**

Not applicable.

#### **REACH Annex XIV (Authorisation List)**

Not applicable.

### **REACH Candidate List (SVHC)**

Contains no substance(s) listed on the REACH Candidate List

## PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

## **POP Regulation (Persistent Organic Pollutants)**

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

## Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

#### **Explosives Precursors Regulation (2019/1148)**

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

## **Drug Precursors Regulation (273/2004)**

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

## 15.1.2. National regulations

No additional information available

## 15.2. Chemical safety assessment

No additional information available



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## **SECTION 16: Other information**

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Indication of changes				
Section	Changed item	Change	Comments	
	General	Modified	SDS EU format according to COMMISSION REGULATION (EU) 2020/878	
15	Regulatory information	Added		

SDS EU Hilti