

Li-Ion Batteries BU Measuring

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: 19.07.2024 Revision date: 19.07.2024 Supersedes: 17.10.2022 Version: 2.18

SECTION 1: Identification

1.1. Product identifier

Name Li-Ion Batteries BU Measuring
Product code BU ET&A

1.2. Other means of identification

Other means of identification Li-Ion Batteries POA 41, POA 80, POA 84, POA 90, POA 93, POA 99, PPA 102, PRA 84, PRA 84 02, PRA 84 03, PRA 84 G, PSA 81, PSA 82, PSA 83, AI E20, AI E21, PD-C

1.3. Recommended use of the chemical and restrictions on use

Recommended use Rechargeable Lithium Ion battery
Restrictions on use For professional use only

1.4. Supplier's details

Supplier

Hilti Far East Private Ltd.
80 Pasir Panjang Road, #16-83/84 Mapletree Business City Singapore
Singapur 117372
T +65 6777 7887 - F +65 6777 3057
sg-customerservice@hilti.com

Department issuing data specification sheet

Hilti AG
Feldkircherstraße 100 Schaan Liechtenstein 9494
T +423 234 2111
product.compliance-power.tools@hilti.com

1.5. Emergency phone number

Emergency number GBK GmbH Global Regulatory Compliance
+49 (0)6132-84463

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

No additional information available

2.2. GHS label elements including precautionary statements

No additional information available

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/information on ingredients

3.1. Substances

Not applicable

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3.2. Mixtures

Comments	Lithium Ion rechargeable battery pack:	
	Name/Type	Energy content (Wh).
	POA 41	68
	POA 80	19,8
	POA 84	55
	POA 90	45
	POA 93	49
	POA 99	70,2
	PPA 102	43,09
	PRA 84	33,0
	PRA 84 02	37,0
	PRA 84 03	36,0
	PRA 84 G	44,0
	PSA 81	37
	PSA 82	36
	PSA 83	97,2
AI E20	8	
AI E21	16	
PD-C	11.	
	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.
Inhalation	Allow affected person to breathe fresh air. Allow the victim to rest.
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.
Eye contact	Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
Ingestion	Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms/effects, acute and delayed

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

Other medical advice or treatment	Treat symptomatically.
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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 chemical

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

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

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

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters/Occupational exposure limits

No additional information available

8.2. Monitoring

No additional information available

8.3. Appropriate engineering control measures

Appropriate engineering controls

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

8.4. Personal protection

Hand protection

Wear protective gloves.

Eye protection

Chemical goggles or safety glasses

Personal protective equipment symbol(s)



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	No data available
Odour threshold	No data available
pH	No data available
Relative evaporation rate (butylacetate=1)	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Flammability	No data available
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
Partition coefficient n-octanol/water (Log Kow)	No data available
Viscosity, dynamic	No data available
Explosive properties	Risk of explosion by shock, friction, fire or other sources of ignition.
Oxidising properties	No data available
Explosive limits	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

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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. Acute 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.

SECTION 12: Ecological information

12.1. Toxicity

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	No additional information available

12.3. Bioaccumulative potential

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Bioaccumulative potential	No additional information available

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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.

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)	188, 230, 310, 348, 376, 377, 387, 636
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

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Transport by sea

Special provisions (IMDG)	188, 230, 310, 348, 376, 377, 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, A201, A213, A331, A334, A802

Rail transport

Special provisions (RID)	188, 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

Regulation	Component / Mixture
Arms and Explosives Act	Not applicable
Chemical Weapons Prohibition Act	
Environmental Protection and Management (Air Impurities) Regulations	
Environmental Protection and Management Act (Hazardous Substances)	
Environmental Public Health (Quality of Piped Drinking Water) Regulations	
Fire Safety Act/Fire Safety (Petroleum and Flammable Materials) Regulations	
Maritime and Port Authority of Singapore (Dangerous, Petroleum and Explosives) Regulations	
Misuse of Drugs Act	
Poisons Act	
Poisons Rules	
Hazardous waste (Control of export, import and transit) Act	
Strategic goods (Control) Act	

15.2. International regulations

No additional information available

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15.3 Chemical inventory status

No additional information available

SECTION 16: Other information

Issue date 19/07/2024

Revision date 19/07/2024

Indication of changes			
Section	Changed item	Change	Comments
1	Department issuing data specification sheet	Modified	
1	Emergency number	Modified	

SDS_SG_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.