

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 basisIssue date: 19/07/2024Revision date: 19/07/2024Supersedes: 17/10/2022Version: 2.18

SECTION 1: Identification	
1.1. GHS Product identifier	
Product form	Article
Product name	Li-Ion Batteries BU Measuring
UN-No. (ADR)	3480
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 uses and restrictions	For professional use only
Recommended use	Rechargeable Lithium Ion battery
1.4. Supplier's details	
Supplier	Department issuing data specification sheet
Hilti Bahrain W.L.L	Hilti AG
Warehouse No. 23 & 25, Gate 285, Road 4306	Feldkircherstraße 100
Warehouse No. 23 & 25, Gate 285, Road 4306 Area 343, Mina Salman	Feldkircherstraße 100 FL 9494 Schaan
Warehouse No. 23 & 25, Gate 285, Road 4306 Area 343, Mina Salman P.O. Box 11401	Feldkircherstraße 100 FL 9494 Schaan Liechtenstein
Warehouse No. 23 & 25, Gate 285, Road 4306 Area 343, Mina Salman P.O. Box 11401 BH Manama, Bahrain	Feldkircherstraße 100 FL 9494 Schaan Liechtenstein T +423 234 2111
Warehouse No. 23 & 25, Gate 285, Road 4306 Area 343, Mina Salman P.O. Box 11401 BH Manama, Bahrain T +973 17811675	Feldkircherstraße 100 FL 9494 Schaan Liechtenstein
Warehouse No. 23 & 25, Gate 285, Road 4306 Area 343, Mina Salman P.O. Box 11401 BH Manama, Bahrain	Feldkircherstraße 100 FL 9494 Schaan Liechtenstein T +423 234 2111
Warehouse No. 23 & 25, Gate 285, Road 4306 Area 343, Mina Salman P.O. Box 11401 BH Manama, Bahrain T +973 17811675	Feldkircherstraße 100 FL 9494 Schaan Liechtenstein T +423 234 2111
Warehouse No. 23 & 25, Gate 285, Road 4306 Area 343, Mina Salman P.O. Box 11401 BH Manama, Bahrain T +973 17811675 <u>hiltibahrain@hilti.com</u> , <u>https://www.hilti-me.com/</u>	Feldkircherstraße 100 FL 9494 Schaan Liechtenstein T +423 234 2111
Warehouse No. 23 & 25, Gate 285, Road 4306 Area 343, Mina Salman P.O. Box 11401 BH Manama, Bahrain T +973 17811675 hiltibahrain@hilti.com, https://www.hilti-me.com/ 1.5. Emergency phone number	Feldkircherstraße 100 FL 9494 Schaan Liechtenstein T +423 234 2111 product.compliance-power.tools@hilti.com
Warehouse No. 23 & 25, Gate 285, Road 4306 Area 343, Mina Salman P.O. Box 11401 BH Manama, Bahrain T +973 17811675 hiltibahrain@hilti.com, https://www.hilti-me.com/ 1.5. Emergency phone number	Feldkircherstraße 100 FL 9494 Schaan Liechtenstein T +423 234 2111 product.compliance-power.tools@hilti.com

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification according to the United Nations GHS

Not classified

2.2. GHS Label elements, including precautionary statements

Labelling according to the United Nations GHS

No labelling applicable



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

2.3. Other hazards which do not result in classification

Other hazards not contributing to the 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 recherche	eable 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 (L

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.



Product Safety Information Sheet

SECTION 6: Accidental release measures

A safety data sheet is not required for this product. This Product Safety Information Sheet has been created on a voluntary basis

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. Most important symptoms/effects, acu	ite 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
symptoms	pack, the following effects are known when getting into contact: Irritation: severely irritant to
	eyes. Irritation: may cause irritation to the respiratory system.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

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 chemical		
Hazardous decomposition products in case of fire	Formation of toxic gases is possible during heating or in case of fire.	
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, protect	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			
Provent entry to sowers and public wate	are. Notify authorities if liquid enters sewers or public waters		

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



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

SECTION 7: Handling and sto	brage
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, inc	luding 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.
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.
Storage temperature	-20 – 40 °C

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls Other information If the electrolyte is leaking out of the battery pack, the following measures have to be taken. Do not eat, drink or smoke during use.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection

Wear protective gloves. Wear protective gloves.

Eye protection

Chemical goggles or safety glasses

Personal protective equipment symbol(s)



8.4. Exposure limit values for the other components

No additional information available



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

SECTION 9: Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	Solid
Appearance	plastic case
Colour	red. Black.
Odour	Not available
Odour threshold	Not available
Melting point	Not available
Freezing point	Not available
Boiling point	Not available
Flammability	Not available
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Flash point	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	Not available
рН	Not available
pH solution	Not available
Viscosity, kinematic (calculated value) (40 °C)	Not applicable
Partition coefficient n-octanol/water (Log Kow)	Not available
Vapour pressure	Not available
Vapour pressure at 50°C	Not available
Density	Not available
Relative density	Not available
Relative vapour density at 20°C	Not applicable
Solubility	Not available
Particle size	Not available

9.2. Data relevant with regard to physical hazard classes (supplemental)

Explosive properties

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

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 toxicological effects



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

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
Other information	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	
Hazardous to the aquatic environment, short-term (acute)	Not classified
Hazardous to the aquatic environment, long-term (chronic)	Not classified
12.2. Persistence and degradability	
Li-Ion Batteries BU Measuring	
Persistence and degradability	No additional information available
12.3. Bioaccumulative potential	
Li-Ion Batteries BU Measuring	
Bioaccumulative potential	No additional information available
12.4. Mobility in soil	
Li-Ion Batteries BU Measuring	
Mobility in soil	No additional information available
12.5. Other adverse effects	
Ozone	Not classified
Other adverse effects	No additional information available
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 information	Avoid release to the environment.				

|--|

In accordance with ADR / IMDG / IATA / RID /



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

ADR	IMDG	ΙΑΤΑ	RID	
14.1. UN number or ID numbe	r			
UN 3480	UN 3480	UN 3480	UN 3480	
14.2. UN proper shipping nam	le			
LITHIUM ION BATTERIES	LITHIUM ION BATTERIES	Lithium ion batteries	LITHIUM ION BATTERIES	
Transport document description				
UN 3480 LITHIUM ION	UN 3480 LITHIUM ION	UN 3480 Lithium ion batteries, 9	UN 3480 LITHIUM ION	
BATTERIES, 9, (E)	BATTERIES, 9		BATTERIES, 9	
14.3. Transport hazard class(es)	Γ		
9	9	9	9	
9	9	9	9	
14.4. Packing group	1			
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 avail	able			
14.6. Special precautions for u	ser			
Overland transport				
Classification code (ADR)	M4			
Special provisions (ADR)	188, 230, 310, 34	8, 376, 377, 387, 636		
Limited quantities (ADR)	0			
Packing instructions (ADR)	0 P903, P908, P909, P910, P911, LP903, LP904, LP905, LP906			
Transport category (ADR)	2			
Tunnel restriction code (ADR)	2 E			
Transport by sea				
Special provisions (IMDG)				
Limited quantities (IMDG)	0	-,,,		
Packing instructions (IMDG)				
EmS-No. (Fire)				
EmS-No. (Spillage)				
Stowage category (IMDG)				
Stowage and handling (IMDG)	SW19			
MFAG-No	147			
Air transport				
Air transport PCA packing instructions (IATA)	Forbidden			
Air transport PCA packing instructions (IATA) PCA max net quantity (IATA)				
Air transport PCA packing instructions (IATA) PCA max net quantity (IATA) CAO packing instructions (IATA)	Forbidden Forbidden See 965			
Air transport PCA packing instructions (IATA) PCA max net quantity (IATA)	Forbidden Forbidden See 965	A164, A183, A201, A213, A331, A334	, A802	
Air transport PCA packing instructions (IATA) PCA max net quantity (IATA) CAO packing instructions (IATA)	Forbidden Forbidden See 965	A164, A183, A201, A213, A331, A334	, A802	



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

Limited quantities (RID) Packing instructions (RID) 0

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

SECTION 16: Other information

A safety data sheet is not required for this product. This Product Safety Information Sheet has been created on a voluntary

ł	basis <replaceemptycellby_no_relevant_data></replaceemptycellby_no_relevant_data>	
	ssue date	7/19/2024
I	Revision date	7/19/2024
\$	Supersedes	10/17/2022

Section	Changed item	Change	Comments
1.3	Department issuing data specification sheet	Modified	
1.4	Emergency number	Modified	

SDS_UN_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.