No.: SUMEC-2023-022

SUMEC

Safety Data Sheets (SDSs)

Product Name: Portable Power Station / Back up battery

Commissioner: Sumec Hardware&Tools Co.,Ltd.

SUMEC HardWare&Tools Co.,Ltd. Test Center

Statement

1、The test report is invalid without the official stamp of SUMEC.

2、Nobody is allowed to photocopy or partly photocopy this test report without written permission of SUMEC.

3、The test report is invalid without the signatures of Ratifier, Reviewer and Testing engineer.

4、The test report is invalid if altered.

5、Objections to the test report must be submitted to SUMEC within 15 days.

6、The test report is valid for the tested samples only.

7、This report is only used for internal quality controlling of the client.

Address: No.1 Xinghuo Road, Jiangbei New Area, Nanjing, 210061,Jiangsu,P.R.China

Tel：（025)58638353

FAX：（025)58638017

Post Code ：210061

E-mail: xxiaojun@sumec.com.cn

http：//tools.sumec.com.cn

Safety Data Sheets (SDSs)

Name of Product	Portable Power Station
Type/Mode	Portable Power Station / Back up battery 12.8V 50Ah 640Wh
Commissioned by	Sumec Hardware & Tools Co.,Ltd.
Commissioner address	No.1 Xinghuo Road, Jiangbei New Area, Nanjing, 210061,Jiangsu,P.R.China
Supplier	Shenzhen Carku Technology Co.,Limited
Supplier address	No.103,block A,Qixing Creative factory, Gaofeng community, Dalang street, LongHua, Shenzhen
Inspection according to	Globally Harmonized System of Classification and Labelling of Chemicals（GHS, Rev.9）
Emergency telephone number	025-58638321
Remarks	-

Seal of SUMEC

Date of issue：2023-02-03

Approved by: Li Bing Reviewed by: Xie Xiaojun Tested by: Zhou Qingxiang

检测专用章

SECTION 1:PRODUCTANDCOMPANY IDENTIFICATION

Product Identifier

Product name: Portable Power Station / Back up battery

Model: PB-20/PB-23

Other means of identification

Synonyms: none

Relevant identifieduse of Product and uses advised against

Recommended Use:-

Uses advised against:-

Details of the Supplier of the safety data sheet:

Name: Shenzhen Carku Technology Co.,Limited

Address: No.103,block A,Qixing Creative factory, Gaofeng community, Dalang street, LongHua, Shenzhen

Telephone: 025-58638321

Fax:-

Postcode:-

E-mail address: yuyuqing@sumec.com.cn

Emergency telephone number

Company Emergency Phone Number: 025-58638321

SECTION 2:HAZARDS IDENTIFICATION

The product is outside of the scope of GHS system

Classification

The watt-hour rate of the product is 640 Wh, it is belong to the Lithium-ion batteries.

The product is tested according to Section 38.3 of the Recommendations on the Transport of Dangerous Goods, the test report number:18270BC20390501

Other information

Caution! Avoid short circuit, place in high temperature environment, put into water, or damage the shell.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization: Mixtures

Description: Chemical power supply based on nonaqueous electrolyte. Composed by positive electrode, negative electrode, diaphragm, electrolyte and shell.

Hazardous ingredients:

Common Chemical Name	Chemical Formula	Concentration (%)	CAS No.
Phosphoric acid	$FeLiO_4P$	38.4%	15365-14-7
Graphite	C	15.0%	7782-42-5
Aluminum	Al	13.0%	7429-90-5
Copper	Cu	9.0%	7440-50-8
1,3-Dioxolan-2-one	$C_3H_3O_3$	6.8%	96-49-1
PVDF	$(C_2H_2F_2)n$	6.0%	24937-79-9
Dimethyl carbonate	$C_3H_6O_3$	5.2%	616-38-6
Polyethylene	$(C_2H_4)n$	4.2%	9002-88-4
Lithium hexafluorophosphate	$LiPF_6$	2.4%	21324-40-3

Note: N/A=Not apply.

SECTION 4: FIRST-AID MEASURES

First aid measures

Eye Contact: Rinse thoroughly with plenty of water, also under the eyelids. If symptoms persist, call a physician.

Skin Contact: Remove contaminated clothing and shoes. Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.

Inhalation: Move to fresh air. If symptoms persist, call a physician.

Ingestion: Do NOT induce vomiting. Drink plenty of water. If symptoms persist, call a physician.

Swallowing: Do not induce vomiting. Get medical attention.

Most Important Symptoms/Effects

No information available.

Indication of any immediate medical attention and special treatment needed

Inform physician. Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

CO_2, dry chemical powder, wet sand, plenty of water (for cooling).

Unsuitable Extinguishing Media:No information available.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. For example: Wear self-contained respiratory protective device. Wear suitable protective clothing and eye/face protection.

Special hazards arising from the substance or mixture:

Battery may burst and release hazardous decomposition products when exposed to a fire situation. Lithium ion batteries contain flammable electrolyte that may vent, ignite and produce sparks when subjected to high temperature (>150℃), When damaged or abused (e.g. mechanical damage or electrical overcharging); may burn rapidly with flare-burning effect; may ignite other batteries in clothes proximity.

SECTION 6:ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Avoid contact with eyes.

Refer to section 8 for personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition.

Evacuate personnel to safe areas.

Environmental precautions

Environmental PrecautionsRefer to protective measures listed in Sections 7 and 8.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning up Use personal protective equipment. Dam up. Cover liquid spill with sand, earth or other Non-combustible absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly.

SECTION 7:HANDLING AND STORAGE

Precautions for safe handling

Keep away from ignition sources， heat and flame. Such batteries must be packed in inner packages in such a manner as to effectively prevent short circuits and to prevent movement which could lead to short circuits. Avoid mechanical or electrical abuse.

More than a momentary short circuit will generally reduce the battery service life. Avoid reversing battery polarity within the battery assembly. In case of a battery unintentionally be crushed, rubber gloves must be used to handle all battery components. Avoid contact with eyes, skin. Avoid inhalation. No smoking at working site. Materials to Avoid: Strong oxidizing agents， Corrosives.

Conditions for safe storage, including any incompatibilities

Store in a cool， well-ventilated area. Keep away from ignition sources， heat and flame. Such batteries must be packed in inner packages in such a manner as to effectively prevent short circuits and to prevent movement which could lead to short-circuits. Materials to Avoid: Strong oxidizing

agents，Corrosives.

SECTION 8:EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering Controls:

Use ventilation equipment if available. Safety shower and eye bath.

Personal Protective Equipment:

Respiratory System: Not necessary under conditions of normal

use. Eyes: Not necessary under conditions of normal use.

Clothing: Wear appropriate protective

clothing. Hand: Safety gloves.

Other Protect:

No smoking，drinking and eating at working site. Wash thoroughly after handling.

SECTION 9: Physical and chemical properties

PhysicalState	Form: Solid
	Color: Silver
	Odor: Odorless
	Odor Threshold: No information available

Change in condition:	
pH, with indication of the concentration	Not determined.
Melting point/freezing point	Not determined.
Initial boiling point and Boiling range:	Not determined.
Flash Point	Not determined.
Flammability (solid, gas)	Not determined.
Upper/lower flammability or explosive limits	Not determined.
Auto-ignition temperature	Product is not self-igniting.
Decomposition temperature	Not determined.
Other Information	No further relevant information available.

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Stable under recommended storage and handling conditions (see section 7).

Chemical stability: Stable under normal conditions of use, storage and transport.

Thermal decomposition/conditions to be avoided: No decomposition if used according to

specifications.

Possibility of Hazardous Reactions: None under normal processing.

Hazardous Polymerization: Hazardous polymerization does not occur.

Conditions to avoid: Strong heating, fire, Incompatible materials.

Incompatible materials: Strong oxidizing agents. Strong acids.

Hazardous Decomposition Products: Carbon oxides, other irritating and toxic gases.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity: No data available. **Skin corrosion/irritation:** No irritant effect. **Serious eye damage/irritation:** Cause serious eye irritation.

Respiratory or skin sensitization: No sensitizing effects known.

Specific target organ system toxicity: No information available.

Note: The internal battery materials may cause irritation to eyes and skin.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity: No further relevant information available.

Persistence and degradability: No further relevant information available. **Bioaccumulative potential:** No further relevant information available.

Mobility in soil: No further relevant information available.

Results of PBT and vPvB assessment:

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects: No information available.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Recommendation: Lithium batteries are best disposed of as a non-hazardous waste when fully or mostly discharged. Contact a licensed professional waste disposal service to dispose of large quantities materials.

Other disposal recommendations

Recommendation: Disposal must be made according to official regulations.

SECTION 14: TRANSPORT INFORMATION

The product had been tested according to the requirements of the UN manual of tests and Criteria, Part III, subsection 38.3.(see section 2)

EmS No: F-A ,S-I

Marine pollutant: No

Environmental hazards: Not applicable.

Special precautions for user: Not applicable.

Proper Shipping name: Lithium ion batteries (Including lithium ion polymer batteries)

Hazard Class: 9

UN/ID Number: UN3480

Packaging Group: Ⅱ

Air transport

Label for conveyance: Class 9 lithium battery hazard label, Cargo Aircraft Only Label

The goods should comply with the requirements of Section IA of Packing Instruction 965 of 63rd DGR Manual of IATA（2022 Edition）.

Maritime transport

Label for conveyance: Class 9 lithium battery hazard label,

The goods should comply with the requirements of packing instruction 903 of IMDG CODE（Amdt. 40-20）(2020 Edition)

Land transport

Label for conveyance: Class 9 lithium battery hazard label,

The goods should comply with the requirements of packing instruction 903 of Agreement concerning the International Carriage of Dangerous Goods by Road (ADR 2021)

Proper Shipping name: Lithium ion batteries packed with equipment (Including lithium ion polymer batteries)

ICAO/IATA Class: Ⅱ

UN/ID Number: UN3481

Packaging Group: Ⅱ

Air transport

Label for conveyance: Class 9 lithium battery hazard label, Cargo Aircraft Only Label

The goods should comply with the requirements of Section I of Packing Instruction 966 of 63rd DGR Manual of IATA（2022 Edition）.

Maritime transport

Label for conveyance: Class 9 lithium battery hazard label

The goods should comply with the requirements of packing instruction 903 of IMDG CODE（Amdt. 40-20）(2020 Edition)

Land transport

Label for conveyance: Class 9 lithium battery hazard label

The goods should comply with the requirements of packing instruction 903 of Agreement concerning the International Carriage of Dangerous Goods by Road (ADR 2021)

SECTION 15: REGULATORY INFORMATION

International Regulation:

Globally Harmonized System of Classification and Labeling of Chemicals

Recommendations on the Transport of Dangerous Goods Model Regulations

IATA Dangerous Goods Regulations（DGR）

International Maritime Dangerous Goods（IMDG CODE）

EU Regulation:

EU regulation (EC) 1272/2008 on "Classification, Labeling and Packaging of Substances and Mixtures" (CLP)

Registration，Evaluation and Authorization of Chemicals（REACH）

European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)

US Regulation:

American National Standard for Hazardous Workplace Chemicals – Hazard Evaluation and Safety Data Sheet and Precautionary Labeling Preparation

SECTION 16: OTHER INFORMATION

This file is only effective to the batteries（PB-20&PB-23） provided by commissioner SUMEC Hardware & Tools Co., Ltd. The commissioner provides the composition information of batteries, and promises its integrity and accuracy. Users should read this file carefully, and use the batteries in correct method. SUMEC Hardware & Tools Co., Ltd. doesn’t assume responsibility for any damage or loss because of misuse of batteries.