Safety Data Sheet (SDSs)

Battery Energy Storage System

Ref, No.: RZUN2025-4621-DS1
CVC Testing Technology Co.,Ltd.

Name of Product	Battery Energy Storage System
Type/Model	RX-215k RX-196k
Commissioned by	Renox Technology Pty Ltd
Commissioner address	28 Warehouse Cct Yatala, QLD, 4207
Supplier	Renox Technology Pty Ltd
Supplier address	28 Warehouse Cct Yatala, QLD, 4207
Factory	Wasion Energy Technology Co., Ltd.
Factory address	No. 28 Baishi Road, Jiuhua Economic and Technological Development Zone, Xiangtan City, Hunan Province, China
Inspection according to	GLOBALLY HARMONISED SYSTEM OF CLASSIFICATION AND LABELING OF CHEMICALS (GHS, Rev.9)
Emergency Telephone Number	+61 7 5672 9983
Remarks	–
Seal of CVC	Date of Issue 2025-07-22 Approved by: Huang Kun Reviewed by: Zhang Siyao Tested by: Lin Qingyuan

SECTION 1

Product and Company Identification

Product Name	Battery Energy Storage System
Model	RX-215k, RX-196k
Other Means of Identification	None
Recommended Use	Applied to electronic products
Uses Advised Against	Don't disassemble, impact, crush, put into fire or water, don't use above 60°C

Name	Renox Technology Pty Ltd.
Address	28 Warehouse Cct, Yatala, QLD, 4207, AUSTRALIA
Telephone	+61 7 5672 9983
Email Address	adam.wang@renoxtech.com.au
Company Emergency Phone Number	+61 7 5672 9983

SECTION 2

Hazards Identification

Class 9 Dangerous Goods: The watt-hour rate of the product is 43kWh.

The product is tested according to Section 38.3 of the Manual of Tests and Criteria

Test Report Number: RZUN2025-4621-DS1

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 Characterisation	Mixtures			
Description	Chemical power supply based on nonaqueous electrolyte. Composed by positive electrode, negative electrode, diaphragm, electrolyte and shell.			
Hazardous Ingredients	See Below.			
Common Chemical Name	Chemical Formula	Concentration (%)	CAS Number	EC No.
Lithium Iron Phosphate	$LiFePO_4$	14-40	15363-14-7	605-917-2
Ethyl Propionate	$C_5H_{10}O_2$	15-40	105-37-3	23-291-4
Copper Foil	Cu	7440-50-8	10-30	231-159-6
Aluminum Foils	A1	7429-90-5	10-30	231-95503
Graphite	C	7782-42-5	7-25	231-955-3
Hexafluoropropylene-vinylidene Fluoride Copolymer	$C_21H_{22}C_{19}N_3O_2$	3-15	9011-17-0	618-470-6
Ethylene Carbonate	$C_3H_4O_3$	0-15	96-49-1	202-510-0
Propylene Carbonate	$C_4H_4O_3$	0-15	108-32-7	203-572-1
Lithium Hexafluorophosphate	F_6LiP	0-15	21324-40-3	244-334-7
Separator	/	0-5	/	/

SECTION 4

First Aid Measures

Most Important Symptoms/Effects	No information available.
Indication of any immediate medical attention and special treatment needed	Inform physician. Treat symptomatically

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.

SECTION 5

Fire Fighting Measures

Suitable Extinguishing Media	CO2 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 batteries contain flammable ingredients that may vent, ignite and produce sparks when subjected to high temperature (>150° C), When damaged or abused (e.g. mechanical damage or electrical overcharging); may burn rapidly with flare-burning effect; may ignite other batteries in close 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 Precautions Refer 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 *Section 13*.
Methods and Materials for Containment	Prevent further leakage or spillage if safe to do so.
Methods and Materials for Containment and 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 the event a battery is unintentionally crushed, rubber gloves must be used to handle all battery components. Avoid contact with eyes and skin. Avoid inhalation. No smoking at working site. Materials to Avoid: Strong oxidising 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 oxidising agents, Corrosives.

SECTION 8

Exposure Controls/Personal Protection

Engineering Controls	Use ventilation equipment if available. Safety shower and eye bath.
Other Protect	No smoking, drinking and eating at working site. Wash thoroughly after handling.
Personal Protective Equipment	Eye and Face Protection: not necessary under conditions of normal use. Clothing: wear appropriate protective clothing. Hand: safety gloves. Respiratory System: not necessary under conditions of normal use.

SECTION 9

Physical and Chemical Properties

Physical State	Form	Prismatic
	Colour	White
	Odour	Odourless
	Odour 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 oxidising 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	Causes serious eye irritation.
Respiratory or Skin Sensitisation	No sensitising effects known.
Specific Target Organ System Toxicity	Not Applicable.
Note	The internal battery materials may cause irritation to eyes and skin.

SECTION 12

Ecological Information

Toxicity	Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
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.

SECTION 13

Disposal Considerations

Waste Treatment Methods	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	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-1
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	Class 9
UN/ID Number	UN3480
PACKING GROUP	
Air Transport Label for Conveyance	Class 9 lithium battery hazard label. Cargo Aircraft Only Label. The goods are complied with the requirements of Section IA of Packing Instruction 965 of 65th DGR Manual of IATA (2024 Edition).
Maritime Transport Label for Conveyance	Class 9 lithium battery hazard label. The goods are complied with the requirements of Packing Instruction P903 of IMDG CODE (Amdt. 41-22) (2022 Edition)
Land Transport Label for Conveyance	Class 9 lithium battery hazard label. The goods are complied with the requirements of Packing Instruction P903 of Agreement concerning the International Carriage of Dangerous Goods by Road (ADR 2023)

SECTION 15

Regulatory Information

International Regulation
GLOBALLY HARMONISED SYSTEM OF CLASSIFICATION AND LABELING OF CHEMICALS (GHS)
Recommendations on the TRANSPORT OF DANGEROUS GOODS Model Regulations IATA Dangerous Goods Regulations (DGR)
INTERNATIONAL MARITIME DANGEROUS GOODS CODE (IMDG CODE)
EU Regulation
EU regulation (EC) 1272/2008 on “Classification, Labeling and Packaging of Substances and Mixtures” (CLP)
Registration, Evaluation and Authorisation of Chemicals (REACH)
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
US DOT, Code of Federal Regulations, Title 49, Transportation, PT. 100-185

SECTION 16

Additional Information

This file is only effective to the Battery Energy Storage System RX-215k RX-196k provided by commissioner Renox Technology Pty Ltd. The commissioner provides the composition information of Battery Energy Storage System and promises its integrity and accuracy. Users should read this file carefully, and use the Battery Energy Storage System in the correct method.

Sample photo