

Material Safety Data Sheet

Sample Name: Residential Energy Storage System

Manufacturer: Xiamen Well Energy Technology Co., Ltd

Material Safety Data Sheet

Chemical Product and Company Identification	
Sample Name	Residential Energy Storage System
Model	CGS S5.0 6H1,CGS S5.0 6H2,CGS S5.0 6H3,CGS S5.0 6H4,CGS S5.0 6H5, CGS S5.0 6H6,CGS S5.0 6H7,CGS S5.0 6H8 CGS S6.0 6H1,CGS S6.0 6H2,CGS S6.0 6H3,CGS S6.0 6H4,CGS S6.0 6H5, CGS S6.0 6H6,CGS S6.0 6H7,CGS S6.0 6H8
Manufacturer	Xiamen Well Energy Technology Co., Ltd
China - Manufacturer Address	One of 3 Floor, No. 999 Min'an Rd, Torch Hi-tech Ind. Dev. Zone, Xiang'an District, Xiamen, 361101, Fujian, China
China - Manufacturer Phone	+86 592 3110088 to 5312
China - Manufacturer Emergency Phone	+86 18907064746
China - Manufacturer E-mail Address	libing.zeng@clenergy.com.cn
Importer	Clenergy Australia
Australia - Importer Address	3/10 Duerdin Street Clayton VIC 3168 Australia
Australia – Importer Phone	+61 3 9239 8088
Australia – Importer Emergency Phone	+61 3 9239 8088
Australia - Importer E-mail Address	udayanka.muller@clenergy.com.au
2. Hazards Identification	
Hazard label	 Class 9- Lithium batteries
Explosive risk	This article does not belong to the explosion dangerous goods.
Flammable risk	This article does not belong to the flammable material.
Oxidation risk	This article does not belong to the oxidation of dangerous goods.
Toxic risk	This article does not belong to the toxic dangerous goods.
Radioactive risk	This article does not belong to the radiation of dangerous goods.
Mordant risk	This article does not belong to the corrosion of dangerous goods.

other risk	Watt hour rate 6*y kWh,, which belong to the Lithium-ion battery. y presents the number of battery modules,it can be 1,2,3,4,5,6,7,8. For battery combinations and ratings refer to the battery combination as below: CGS S x 6Hy:x presents the rated power of system,it can be 5.0,6.0, y presents the number of battery modules,it can be 1,2,3,4,5,6,7,8.
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3. Composition Information

Below information (including Chemical Name, CAS No. , composition in % by weight) should be filled out exactly. Any changes will cause extra analysis cost after order confirmation, and re-apply the service. Composition / Ingredient(Please note that the sum of % composition should be $\leq 100\%$)

Chemical Name	CAS No. (Priority)	Composition (in % by weight)	EC No. (if applicable)	Classification	Specific Concentration Limits,M- Factors,Acute Toxicity Estimates(ATE)
Lithium iron phosphate (LiFePO ₄)	15365-14-7	37.0	476-700-9	None	None
Graphite	7782-42-5	14.9	231-955-3	None	None
Ethyl methyl carbonate	623-53-0	12.2	613-014-2 433-480-9	None	None
Copper Foils	7440-50-8	7.5	231-159-6	None	None
Aluminum foil	7429-90-5	19.1	231-072-3	None	None
Ethylene carbonate	96-49-1	6.1	202-510-0	None	None
Lithium hexafluorophosphate	21324-40-3	3.2	244-334-7	None	None

Note:CAS Number is Chemical Abstract Service Registry Number.

EINECS Number is EUROPEAN Inventory of Existing Commercial Chemical Substance.

N/A=Not apply.

4. First aid measures

Eye
Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid. Skin
Remove contaminated clothes and rinse skin with plenty of water or shower for 15 minutes.
Get medical aid.
Inhalation
Remove from exposure and move to fresh air immediately. Use oxygen if available.
Ingestion
Give at least 2 glasses of milk or water. Induce vomiting unless patient is unconscious. Call a physician

5. Fire-fighting measures

Flash Point: N/A.

Auto-Ignition Temperature: N/A.

Extinguishing Media: Water, CO2.

Special Fire-Fighting Procedures: Self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: Cell may vent when subjected to excessive heat-exposing battery contents.

Hazardous Combustion Products: Carbon monoxide, carbon dioxide, lithium oxide fumes.

6. Accidental release measures

Steps to be Taken in case Material is Released or Spilled

If the battery material is released, remove personnel from area until fumes dissipate. Provide maximum ventilation to clear out hazardous gases. Wipe it up with a cloth, and dispose of it in a plastic bag and put into a steel can. The preferred response is to leave the area and allow the battery to cool and vapors to dissipate. Provide maximum ventilation. Avoid skin and eye contact or inhalation of vapors. Remove spilled liquid with absorbent and incinerate.

Waste Disposal Method

It is recommended to discharge the battery to the end, to use up the metal lithium inside the battery, and to bury the discharged battery in soil.

7. Handling and storage

The battery should not be opened, destroyed or incinerate, since they may leak or rupture and release to the environment, the ingredients that they contain in the hermetically sealed container. Do not short circuit terminals, or over charge the battery, forced over-discharge, throw to fire. Do not crush or puncture the battery, or immerse in liquids.

Precautions to be taken in handling and storing.

Avoid mechanical or electrical abuse. Storage preferably in cool, dry and ventilated area, which is subject to little temperature change. Storage at high temperatures should be avoided. Do not place the battery near heating equipment, nor expose to direct sunlight for long periods.

Other Precautions

The battery may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity.

8. Exposure controls/personal protection

Respiratory Protection

In case of battery venting, provide as much ventilation as possible. Avoid confined areas with venting cell cores.

Respiratory Protection is not necessary under conditions of normal use.

Ventilation

Not necessary under conditions of normal use.

Protective Gloves

Not necessary under conditions of normal use.

Other Protective Clothing or Equipment

Not necessary under conditions of normal use.

Personal Protection is recommended for venting battery

Respiratory Protection, Protective Gloves, Protective Clothing and safety glass with side shields.

9. Physical and chemical properties

Appearance: Quadrate shape

Odors: If leaking, smells of medical ether.

pH: Not applicable as supplied.

Flash Point: Not applicable unless individual components exposed.

Flammability: Not applicable unless individual components exposed.

Relative density: Not applicable unless individual components exposed.

Solubility (water): Not applicable unless individual components exposed.

Solubility (other): Not applicable unless individual components exposed.

10. Stability and reactivity

稳定性：产品在第 7 节所述的条件下稳定。

Stability: Product is stable under conditions described in Section 7.

Conditions to Avoid: Heat above 70°C or incinerate. Deform. Mutilate. Crush. Disassemble. Overcharge. Short circuit.

Expose over a long period to humid conditions.

Materials to avoid: Oxidising agents, alkalis, water.

Hazardous Decomposition Products: Toxic Fumes, and may form peroxides.

Hazardous Polymerization: N/A.

If leaked, forbidden to contact with strong oxidizers, mineral acids, strong alkalies, halogenated Hydrocarbons.

11. Toxicological information

Signs & symptoms: None, unless battery ruptures.

In the event of exposure to internal contents, vapour fumes may be very irritating to the eyes and skin.

Inhalation: Lung irritant.

Skin contact: Skin irritant.

Eye contact: Eye irritant

Ingestion: Poisoning if swallowed.

Medical conditions generally aggravated by exposure: In the event of exposure to internal contents, moderate to server irritation, burning and dryness of the skin may occur, Target Organs nerves, liver and kidneys.

12. Ecological information

Mammalian effects: None known at present.

Eco-toxicity: None known at present.

Bioaccumulation potential: Slowly Bio-degradable.

Environmental fate: None known environmental hazards at present.

13. Disposal consideration

Do not incinerate, or subject cells to temperature in excess of 70°C, Such abuse can result in loss of seal leakage, and/or cell explosion. Dispose of in accordance with appropriate local regulations.

14. Transport information

Label for conveyance: Class 9 Hazard Label,
UN Number: UN 3480
Proper Shipping name: Lithium ion batteries (including lithium ion polymer batteries)
Packaging Group: II
IMDG CODE Special provisions: 188, 230, 310, 348, 376, 377, 384, 387
EmS No: F-A ,S-I
Marine pollutant: No
Hazard Classification: The goods shall be complied with the Packing Instructions P903 ofIMDG CODE (Amdt.40-20) , including the passing of the UN38.3 test.

15. Regulation information

Legal information

- 《Dangerous Goods Regulations》
- 《Recommendations on the Transport of Dangerous Goods Model Regulations》
- 《International Maritime Dangerous Goods》
- 《Technical Instructions for the Safe Transport of Dangerous Goods》
- 《Classification and code of dangerous goods》
- 《Occupational Safety and Health Act》 (OSHA)
- 《Toxic Substance Control Act》 (TSCA)
- 《Consumer Product Safety Act》 (CPSA)
- 《Federal Environmental Pollution Control Act》 (FEPCA)
- 《The Oil Pollution Act》 (OPA)
- 《Superfund Amendments and Reauthorization Act TitleIII (302/311/312/313)》 (SARA)
- 《Resource Conservation and Recovery Act》 (RCRA)
- 《Safety Drinking Water Act》 (CWA)
- 《California Proposition 65》
- 《Code of Federal Regulations》 (CFR)

In accordance with all Federal State and local laws.

16. Other information

This file is only effective to the batteries (Model: CGS S5.0 6H1,CGS S5.0 6H2,CGS S5.0 6H3,CGS S5.0 6H4,CGS S5.0 6H5,CGS S5.0 6H6,CGS S5.0 6H7,CGS S5.0 6H8,CGS S6.0 6H1,CGS S6.0 6H2,CGS S6.0 6H3,CGS S6.0 6H4,CGS S6.0 6H5,CGS S6.0 6H6,CGS S6.0 6H7,CGS S6.0 6H8) provided by Xiamen Well Energy Technology Co., Ltd. The manufacturer provides the composition information of batteries, and promises its integrity and accuracy. Users should read this file carefully, and use the batteries in the correct method. The material safety data sheet is furnished to every manufacturer as a reference to secure the safe handling of chemicals.

Every manufacturer is requested to carry out appropriate actions for chemical handling as their own responsibility. The supplier makes no warrantee, either express or implied. Concerning of these products , User assumes all risks resulting from its use.

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