

Safety Data Sheet (SDS)

Only for use in Australia

SUNGROW	Safety Data Sheet (SDS)	Version: 1.0
		Date of issue: 2025-2-27
	C0325-AA-H (3,2V 325Ah 1040Wh) ST050CF,ST062CF,ST075CF,ST087CF,ST100CF,ST112CF,ST125CF ST137CF,ST150CF,ST162CF,ST175CF,ST187CF,ST200CF,ST212CF ST225CF,ST237CF,ST250CF	Revision date:2026-2-27

SECTION 1: Product and company identification

1.1 Product Identifier:

- Product name: Rechargeable Li-ion Battery
- Model: STC12.5

1.2 Other means of identification:

- Synonyms: None

1.3 Relevant identified use of Product and uses advised against:

- Recommended Use: Energy storage system
- Uses advised against: /

1.4 Details of the Supplier of the safety data sheet:

Commissioned by	Sungrow Power Supply Co., Ltd.
Commissioner address	No.1699 Xiyou Rd., New & High Technology Industrial Development Zone, Hefei 230088 P.R. China
Supplier	SUNGROW ENERGY STORAGE TECHNOLOGY CO., LTD.
Supplier address	No. 788, Mingchuan Road, Boyan Technology Park, Hi-tech Zone, Hefei City 230088 P.R. China
E-mail address	cuizhongchang@sungrowpower.com
Telephone	+86-15555115189

1.5 Details of the Local Importer Provider of the safety data sheet:

Local Importer Provider	Sungrow Australia Group Pty Ltd *
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Address	Level 7, 1 Elizabeth Plaza, North Sydney NSW 2060, Australia
Emergency number	1800 950 566
E-mail address	service@sungrowpower.com.au

* Sungrow Australia Group Pty Ltd is the importer of ST050-250CF for Australian market

Here is a link to more contact information, which includes for other offices around the world:

<https://www.sungrowpower.com/au/en/about-us/contact-us>

SECTION 2: Hazard identification

2.1 Classification:

- The watt-hour rate of the product is 12480Wh, it is belong to the class 9 dangerous goods.
- The product is tested according to Section 38.3 of the Manual of Tests and Criteria, the test report number is: RZUN012025-3305-M1.

2.2 Label elements:

- Hazard pictogram(s) :



- Signal word : Danger
- Hazard statements : H314 Causes severe skin burns and eye injuries.
- Precautionary statements:

P101	If medical advice is needed, have the product container or label at hand.
P102	Keep out of reach of children.
P103	Read label before use.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P303+P361+P353	IF ON SKIN (or hair): Take off all contaminated clothing immediately. Rinse skin with water/ take a shower.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if contact lenses are worn and can be easily removed. Continue rinsing.

P310	Call a detox center/doctor immediately.
P405	Storage must be locked.
P501	Dispose of contents/container in accordance with local/regional/national /international regulations.

2.3 Other hazards which do not result in classification :

In the event of damage resulting in a leak of exposed materials, avoid contact with contents of an open or damaged cell or battery. The product uses 50% glycol as the coolant, CAS No: 107-21-1 Label elements, including precautionary statements.

Pictogram		
Signal word	Warning	
Hazard statement(s)	H302	Harmful if swallowed.
	H373	May cause damage to organs (Kidney) through prolonged or repeated exposure if swallowed.
Precautionary statement(s)	P260	Do not breathe dust/fume/gas/mist/vapours/spray.
	P264	Wash skin thoroughly after handling.
	P270	Do not eat, drink or smoke when using this product.
	P301+P312+P330	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell Rinse mouth.
	P314	Get medical advice/attention if you feel unwell.
	P501	Dispose of contents/container to an approved waste disposal plant.

2.4 Other information:

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

the shell.

SECTION 3: Composition/information on ingredients

3.1 Chemical characterization:

Mixtures

3.2 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.	EC No.
Graphite	C	20.9	7782-42-5	231-955-3
Lithium Iron Phosphate	LiFePO ₄	40.6	15365-14-7	604-917-2
Aluminum	Al	9.2	7429-90-5	231-072-3
Copper	Cu	6.5	7440-50-8	231-159-6
Lithium hexafluorophosphate	LiPF ₆	2.9	21324-40-3	244-334-7
Methyl ethyl carbonate	C ₄ H ₈ O ₃	11.4	623-53-0	613-014-2
Vinyl carbonate	C ₃ H ₄ O ₃	4.8	96-49-1	202-510-0
Polythene	(C ₂ H ₄) _n	2.8	9002-88-4	618-339-3

SECTION 4: First-aid measures

Use under normal conditions, the battery is hermetically sealed.

4.1 First aid measures:

- Eye Contact: Contents of an open battery can cause severe irritation and chemical burns. Immediately flush eyes thoroughly with water for at least 15 minutes, lifting upper and lower lids, until no chemical remains. Seek medical attention.
- Skin Contact: Contents of an open battery can cause skin irritation and/or chemical burns.

Remove contaminated clothing and wash skin with soap and water. If a chemical burn occurs or if irritation persists, seek medical attention.

- Inhalation: Contents of an open battery can cause respiratory irritation. Inhalation of vapors may cause irritation of the upper respiratory tract and lungs. Provide fresh air and seek medical attention.

- Ingestion: Swallowing a battery can be harmful. Contents of an open battery may cause serious chemical burns of mouth, esophagus, and gastrointestinal tract. If battery or open battery is ingested, do not induce vomiting or eat food or drink. Seek medical attention immediately.

4.2 Most Important Symptoms/Effects:

No information available.

4.3 Indication of any immediate medical attention and special treatment needed:

Inform physician. Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1 Suitable Extinguishing Media:

- CO₂, dry chemical powder, wet sand, plenty of water (for cooling).
- Unsuitable Extinguishing Media: No information available.

5.2 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.

5.3 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

6.1 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.

6.2 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 item 13.

6.3 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

7.1 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.

7.2 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, Corrosive.

SECTION 8: Exposure controls/personal protection

8.1 Engineering Controls:

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

8.2 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.

8.3 Other Protect:

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

SECTION 9: Physical and chemical properties

Physical State	Form: Prismatic	
	Color: White	
	Odour: Odourless	
	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

13.1 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.

13.2 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

Hazard Class: Class 9

UN/ID Number: UN3480

Packaging Group: II

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.42-24) (2024 Edition)

SECTION 15: Regulatory information

15.1 International Regulation:

- GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS (GHS)
- Recommendations on the TRANSPORT OF DANGEROUS GOODS Model Regulations
- IATA Dangerous Goods Regulations (DGR)
- INTERNATIONAL MARITIME DANGEROUS GOODS CODE (IMDG CODE)

15.2 EU Regulation:

- Regulation (EU) 2020/878: Revised Requirements for EU Safety Data Sheets
- EU regulation (EC) 1272/2008 on "Classification, Labeling and Packaging of Substances and Mixtures" (CLP)
- Registration, Evaluation and Authorization of Chemicals (REACH)
- Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)

15.3 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: Other information

This file is only effective to the batteries (STC12.5) provided by commissioner Sungrow Power Supply 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. CVC Testing Technology Co., Ltd. (CVC) doesn't assume responsibility for any damage or loss because of misuse of batteries.