



SDS Service Summary

No.: CANEC24029678903

Date: 30 Sep 2025

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This SDS is to supersede SDS CANEC24029678902

SGS Job No.	:	CQP24-014021
Product Name	:	Firefly Pro Residential Energy Storage System(Firefly Pro-H3/4/5/6/7/8)
Client Ref. Info.	:	See remark
Manufacturer / Supplier	:	CHENGDU TECLOMAN ENERGY STORAGE TECHNOLOGY CO., LTD
Country of Origin	:	China
Composition/Ingredient of product (as per applicant submission)	:	See section 3 Composition/information on ingredients on the SDS
Job Receiving Date	:	30 Dec 2024
SDS Preparation Period	:	30 Dec 2024-02 Jan 2025
Service Requested	:	Preparation of Safety Data Sheet (SDS) for the product with submitted information, with calculation of the classification and labeling requirement according to the submitted composition and European Commission Regulation (EC) No 1272/2008.
Summary	:	As per request, the contents and formats of the SDS are prepared in accordance with European Commission Regulation (EC) No 1907/2006, Regulation (EC) No 1272/2008 and Regulation (EU) No 2020/878, and is provided per attached.
Remark 1	:	Information of this SDS refer to SDS CANEC24029678901.
Remark 2	:	This SDS updates Identification of the substance/mixture and of the company/undertaking.

Disclaimer: This Safety Data Sheet (SDS) is provided to applicant to fulfill European Commission Regulation (EC) No 1907/2006 and communicate the hazard information of chemicals through the supply chain to ensure safe use.

It is not a test report or a certificate ensuring the safety of a product.

SGS has consolidated product information based on documents provided by Applicant (i.e. product name, the supplier details, product composition, available physical data, etc.) without independent verification from SGS.

The information is provided without any warranty, express or implied, regarding its correctness.

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Project Engineer

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Remark:

Client Ref. Info.

: Importer/Responsible Supplier: Tecloman Pty Ltd
Address: L25/108 St Georges Terrace, Perth, Western Australia, Australia.
ABN Supplier: 99 672 695 582
Email Supplier: Mac zhang@tecloman.com



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Safety data sheet

Regulation (EC) 1907/2006 and 1272/2008

Printing date: 30.09.2025

Version number: 1.0

Revision date: 31.12.2024

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

- Trade name: **Firefly Pro Residential Energy Storage System(Firefly Pro-H3/4/5/6/7/8)**
- UFI: **FX60-A0KN-P00X-N1PV**

1.2 Relevant identified uses of the substance or mixture and uses advised against

- Application of the substance / the mixture: *Used for household energy storage*

1.3 Details of the supplier of the safety data sheet

- Manufacturer / Supplier: **CHENGDU TECLOMAN ENERGY STORAGE TECHNOLOGY CO., LTD**
- Full address: **GUIJIN ROAD, XINDU INDUSTRIAL ZONE, CHENGDU, SICHUAN, CHINA**
- Phone number: **028-83932902**
- Email: **tecloman@tlmse.com**

- Only Representative / other EU contact point: *Not available*

1.4 Emergency telephone number:

IRELAND

National Poisons Information Centre

Tel: +353 (01) 809 2566 (For healthcare professionals)

+353 (01) 809 2166 (For public: 8am - 10pm)

Tecloman Pty Ltd

Tel: 0402888569

- 1.5 Reference Number: **CANEC24029678903,CQP24-014021**

1.6 Remark:

This product is likely to be classified as article with substances not intended to be released and is out of scope of a SDS as set out in Regulation (EC) No 1907/2006. This SDS is generated for applicant's reference only.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

- Classification according to Regulation (EC) No 1272/2008
- The product is not classified according to the CLP regulation.*

Information concerning particular hazards for human and environment:

The product has not to be labelled due to the calculation procedure of Regulation (EC) No. 1272/2008.

Classification system:

The classification is according to the latest edition of EU Regulation (EC) No. 1272/2008, and extended by company and literature data.

2.2 Label elements

- Labelling according to Regulation (EC) No. 1272/2008 *Not applicable*
- Hazard pictograms *Not applicable*
- Signal word *Not applicable*

Hazard-determining components of labelling: *Not applicable*

- Hazard statements *Not applicable*
- Precautionary statements *Not applicable*

2.3 Other hazards:

- Results of PBT and vPvB assessment
- PBT: *Not applicable*
- vPvB: *Not applicable*
- Determination of endocrine-disrupting properties *Not applicable*

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SECTION 3: Composition/information on ingredients

· **3.2 Mixtures**

· **Description:**

Mixture of the substances listed below with nonhazardous additions.

For the wording of the listed hazard statements refer to section 16.

· **Composition:**

CAS: 7439-89-6 EINECS: 231-096-4	Iron		38.1%
CAS: 15365-14-7	Lithium iron phosphate		23%
CAS: 37348-94-0	Ampholine		13.2%
CAS: 7782-42-5 EINECS: 231-955-3	Graphite	Substance with a Union workplace exposure limit	11.5%
CAS: 7440-50-8 EINECS: 231-159-6	Copper	Substance with a Union workplace exposure limit	6.7%
CAS: 7429-90-5 EINECS: 231-072-3	Aluminium	Substance with a Union workplace exposure limit	5.5%
CAS: 9003-07-0	Polypropylene		2%

SECTION 4: First aid measures

· **4.1 Description of first aid measures**

- **General description:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.

· **4.2 Most important symptoms and effects, both acute and delayed:**

No further relevant information available.

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

No further relevant information available.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.

· **5.2 Special hazards arising from the substance or mixture:** No further relevant information available.

· **5.3 Advice for firefighters**

- **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures:** Not required.

· **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

· **6.3 Methods and material for containment and cleaning up:** Pick up mechanically.

· **6.4 Reference to other sections:**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling:**
No special measures required.
For the general occupational hygienic measures refer to Section 8.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **7.3 Specific end use(s):** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

· **Ingredients with limit values that require monitoring at the workplace:**

CAS: 7782-42-5 Graphite (11.5%)

AGW (Germany)	Long-term value: $1.25 \cdot 10^{**} \text{ mg/m}^3$ 2(II); *alveolengängig**eintembar; AGS, DFG, Y
VLEP (France)	Long-term value: 2 mg/m^3 pour la fraction alvéolaire
OEL (Ireland)	Long-term value: 2 mg/m^3 respirable fraction

CAS: 7440-50-8 Copper (6.7%)

MAK (Germany)	Long-term value: 0.01 A mg/m^3 als Cu
VLEP (France)	Short-term value: 2^{**} mg/m^3 Long-term value: $0.2 \cdot 1^{**} \text{ mg/m}^3$ *fumées **poussières, en Cu
OEL (Ireland)	Long-term value: $0.2 \cdot 1^{**} \text{ mg/m}^3$ *fume **dusts and mists

CAS: 7429-90-5 Aluminium (5.5%)

AGW (Germany)	Long-term value: $1.25 \cdot 10^{**} \text{ mg/m}^3$ 2(II); *alveolengängig**eintembar; AGS, DFG, Y
VLEP (France)	Long-term value: $5 \cdot 10^{**} \text{ mg/m}^3$ *pulvérulent **métal
OEL (Ireland)	Long-term value: $1 \cdot \text{ mg/m}^3$ *metal, respirable fraction

· **Regulatory information**

AGW (Germany): TRGS 900

VLEP (France): ED 1487 05.2021

OEL (Ireland): 2021 CoP for the Safety, Health and Welfare at Work

MAK (Germany): MAK- und BAT-Liste

· **DNELs:** Not available· **PNECs:** Not available

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· Ingredients with biological limit values:

CAS: 7429-90-5 Aluminium

BGW (Germany)	50 µg/g Kreatinin Untersuchungsmaterial: Urin Probennahmezeitpunkt: bei Langzeitexposition: am Schichtende nach mehreren vorangegangenen Schichten Parameter: Aluminium
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· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**

Based on the composition shown in Section 3, the following measures are suggested for occupational safety measure.

· **Appropriate engineering controls:** See Section 7 for information about design of technical facilities.

· **Individual protection measures, such as personal protective equipment**

· **Respiratory protection:** Not required.

· **Hand protection:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

· **Material of gloves:**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material:**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye/face protection:** Not required.

· **Body protection:** Protective work clothing

· **Thermal hazards:** Not required for normal conditions of use.

· **Environmental exposure controls:**

Control measures must be made in accordance with Community environmental protection legislation.

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· Physical state:	Solid
· Colour:	Silvery white
· Odour:	Odorless
· Odour threshold:	Not available
· Melting point/Freezing point:	Not available
· Boiling point or initial boiling point and boiling range:	Not available
· Flammability:	Not available
· Lower and upper explosion limit	
· Lower:	Not available
· Upper:	Not available
· Flash point:	Not available

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· Auto-ignition temperature:	Not available
· Decomposition temperature:	Not available
· pH:	Not available
· Viscosity	
· Kinematic viscosity:	Not available
· Dynamic viscosity:	Not available
· Solubility	
· Water:	Not available
· Partition coefficient n-octanol/water (log value):	Not available
· Vapour pressure:	Not available
· Density and/or relative density	
· Density:	Not available
· Relative density:	Not available
· Relative vapour density:	Not available
· Particle characteristics:	Not available

· **9.2 Other information**

· Appearance:	
· Form:	Solid

· **Information with regard to physical hazard classes**

· Explosives:	Not applicable
· Flammable gases:	Not applicable
· Aerosols:	Not applicable
· Oxidising gases:	Not applicable
· Gases under pressure:	Not applicable
· Flammable liquids:	Not applicable
· Flammable solids:	Not applicable
· Self-reactive substances and mixtures:	Not applicable
· Pyrophoric liquids:	Not applicable
· Pyrophoric solids:	Not applicable
· Self-heating substances and mixtures:	Not applicable
· Substances and mixtures, which emit flammable gases in contact with water:	Not applicable
· Oxidising liquids:	Not applicable
· Oxidising solids:	Not applicable
· Organic peroxides:	Not applicable
· Corrosive to metals:	Not applicable
· Desensitised explosives:	Not applicable
· Other safety characteristics:	Not available

SECTION 10: Stability and reactivity

- **10.1 Reactivity:** No further relevant information available.
- **10.2 Chemical stability:** No further relevant information available.
- **10.3 Possibility of hazardous reactions:** No dangerous reactions known.
- **10.4 Conditions to avoid:** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

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SECTION 11: Toxicological information

· 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

· Acute toxicity

Based on available data, the classification criteria are not met.

Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification:

CAS: 7439-89-6 Iron

Oral	LD50	30,000 mg/kg (rat)
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· **Skin corrosion/irritation:** Based on available data, the classification criteria are not met.

· **Serious eye damage/irritation:** Based on available data, the classification criteria are not met.

· **Respiratory or skin sensitization:** Based on available data, the classification criteria are not met.

· **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.

· **Carcinogenicity:** Based on available data, the classification criteria are not met.

· **Reproductive toxicity:** Based on available data, the classification criteria are not met.

· **STOT-single exposure:** Based on available data, the classification criteria are not met.

· **STOT-repeated exposure:** Based on available data, the classification criteria are not met.

· **Aspiration hazard:** Based on available data, the classification criteria are not met.

· 11.2 Information on other hazards

· Endocrine disrupting properties:

None of the ingredients is listed.

· **Other information:** No further relevant information available.

SECTION 12: Ecological information

· 12.1 Toxicity

· **Aquatic toxicity:** No further relevant information available.

· **12.2 Persistence and degradability:** No further relevant information available.

· **12.3 Bioaccumulative potential:** No further relevant information available.

· **12.4 Mobility in soil:** No further relevant information available.

· 12.5 Results of PBT and vPvB assessment

· **PBT:** Not applicable

· **vPvB:** Not applicable

· 12.6 Endocrine disrupting properties:

The product does not contain substances with endocrine disrupting properties.

· **12.7 Other adverse effects:** No further relevant information available.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

· **Recommendation:** Smaller quantities can be disposed of with household waste.

· Uncleaned packaging:

· **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

· 14.1 UN number or ID number

· **ADR/RID/ADN, IMDG, IATA**

UN3480

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- 14.2 UN proper shipping name
- ADR/RID/ADN, IMDG, IATA

LITHIUM ION BATTERIES

- 14.3 Transport hazard class(es)
- ADR/RID/ADN, IMDG, IATA



- Class 9 Miscellaneous dangerous substances and articles.
- Label 9A

- 14.4 Packing group
- ADR/RID/ADN, IMDG, IATA

Not applicable

- 14.5 Environmental hazards:
- Marine pollutant:

No

- 14.6 Special precautions for user:

Warning: Miscellaneous dangerous substances and articles.

- Hazard identification number (Kemler code): -
- EMS Number: F-A,S-I
- Stowage Category A
- Stowage Code SW19 For batteries transported in accordance with SP 376 or SP 377 Category C, unless transported on a short international voyage.

- 14.7 Maritime transport in bulk according to IMO instruments

Not applicable

- 14.8 Transport/Additional information:

- ADR/RID/ADN

- Limited quantities (LQ):

0

- Excepted quantities (EQ)

Code: E0

Not permitted as Excepted Quantity

- Transport category:

2

- Tunnel restriction code:

E

- IMDG

- Limited quantities (LQ)

0

- Excepted quantities (EQ)

Code: E0

Not permitted as Excepted Quantity

- UN "Model Regulation":

UN 3480 LITHIUM ION BATTERIES

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

- Directive 2012/18/EU

- Named dangerous substances - ANNEX I None of the ingredients is listed.

- Seveso category Not applicable

- Qualifying quantity (tonnes) for the application of lower-tier requirements Not applicable

- Qualifying quantity (tonnes) for the application of upper-tier requirements Not applicable

- REGULATION (EU) 2019/1021 on persistent organic pollutants (POP)

None of the ingredients is listed.

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· **Regulation (EU) No 649/2012**

None of the ingredients is listed.

· **REGULATION (EU) 2019/1148**

· **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

· **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

· **Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

· **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

· **REGULATION (EC) No 1005/2009 on substances that deplete the ozone layer – ANNEX I (Ozone-depleting potential)**

None of the ingredients is listed.

· **Other regulations, limitations and prohibitive regulations**

· **SVHC Candidate List of REACH Regulation Annex XIV Authorisation (25/6/2025)**

None of the ingredients is listed

· **REACH Regulation Annex XVII Restriction (23/6/2025)**

See Section 16 for information about restriction of use.

None of the ingredients is listed

· **REACH Regulation Annex XIV Authorisation List (13/11/2023)**

None of the ingredients is listed

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

· **Recommended restriction of use** Not applicable

The contents and format of this SDS are in accordance with Regulation (EC) No 1907/2006, 1272/2008 and Regulation (EU) No 2020/878.

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· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

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LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

*** Data compared to the previous version altered.**

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