

## Safety Data Sheet (SDS) Report

SDS Number: P20251224103

Applicant: Kewben Pty Ltd trading as GreenhouseInternational  
5/1 Locke Lane, Ellenbrook, 6069, Western Australia

Issue Date: 2025-12-31

### Sample Description:

The sample information was submitted and identified on client's behalf to be:

Product Name : 16kWh Lithium Ion Battery  
Physical State : Solid  
Data Received : Dec 24, 2025  
Data Reviewed : Dec 31, 2025

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### Service Requested:

Based on the information provided by the applicant, the Safety Data Sheet (SDS) was generated in accordance with WHS and ADG requirements, for details please refer to attached pages.

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### Authorized By:

On Behalf Of Regulatory Affairs in Intertek Testing Services Ltd., Shanghai



Anna Wang  
Technical Manager

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### Intertek Assuris

5th Floor Building No.86, 1198 QinZhou Road (North),  
Cao He jing Development Zone, ShangHai China Zip:200233

Tel: +86 021 53397981  
E-mail:hers@intertek.com



### SECTION 1: Product identifier

#### 1.1. GHS Product identifier

Product form : Article  
 Product name : 16kWh Lithium Ion Battery

#### 1.2. Other means of identification

No additional information available

#### 1.3. Recommended use of the chemical and restrictions on use

Recommended use : Used as a household storage battery

#### 1.4. Details of manufacturer or importer

Kewben Pty Ltd trading as GreenhouseInternational  
 5/1 Locke Lane, Ellenbrook, 6069, Western Australia  
 T 61 08 92972969  
[sales@greenhse.com](mailto:sales@greenhse.com)

#### 1.5. Emergency phone number

61 08 92972969

### SECTION 2: Hazard identification

#### 2.1. Classification of the hazardous chemical

Classification according to the model Work Health and Safety Regulations (WHS Regulations)

Not applicable

#### 2.2. GHS Label elements, including precautionary statements

No labelling applicable

#### 2.3. Other hazards which do not result in classification

No additional information available

### SECTION 3: Composition and information on ingredients

Name	CAS-No.	%
Graphite	7782-42-5	10 – 30
Phosphoric acid, iron(2+) lithium salt (1:1:1)	15365-14-7	24
Phosphate(1-), hexafluoro-, lithium	21324-40-3	23
Copper Foil	7440-50-8	7 - 13
Aluminum	7429-90-5	5 - 10
Nickel	7440-02-0	1 - 5

### SECTION 4: First aid measures

#### 4.1. Description of necessary first-aid measures

First-aid measures general : If you feel unwell, seek medical advice.  
 First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

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according to the Work Health and Safety (WHS) Regulations

First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.
Self protection of the first-aider	: Even though no specific hazards are defined, first-aiders should wear eye protection, gloves and disposable half mask. Consider additional protection if repeated or prolonged exposition is likely.

### 4.2. Symptoms caused by exposure

Symptoms/effects after inhalation	: None under normal conditions.
Symptoms/effects after skin contact	: None under normal conditions.
Symptoms/effects after eye contact	: None under normal conditions.
Symptoms/effects after ingestion	: None under normal conditions.

### 4.3. Medical attention and special treatment

Note to physician :	: Treat symptomatically.
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## SECTION 5: Fire-fighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam.
Unsuitable extinguishing media	: Do not use a heavy water stream.

### 5.2. Specific hazards arising from the chemical

Fire hazard	: No fire hazard.
Explosion hazard	: No direct explosion hazard.
General measures	: Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

### 5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
Protective equipment for firefighters	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
Hazchem Code	: 2Y

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.
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#### 6.1.1. For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment.
Emergency procedures	: Ventilate spillage area.

#### 6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Evacuate unnecessary personnel.

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and materials for containment and cleaning up

For containment	: Using a clean shovel, put the material in a dry container and cover without compressing it.
Methods for cleaning up	: Mechanically recover the product.

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according to the Work Health and Safety (WHS) Regulations

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Additional hazards when processed	: Not expected to present a significant hazard under anticipated conditions of normal use.
Precautions for safe handling	: Ensure good ventilation of the work station. Wear personal protective equipment.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

#### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Keep in a cool, well-ventilated place away from heat.
Storage conditions	: Keep cool. Protect from sunlight.
Packaging materials	: Polyethylene

### SECTION 8: Exposure controls and personal protection

#### 8.1. Control parameters - exposure standards

Copper Foil (7440-50-8)	
Australia - Occupational Exposure Limits	
Local name	Copper
OES TWA	0.2 mg/m <sup>3</sup> fume 1 mg/m <sup>3</sup> dusts and mists (as Cu)
Regulatory reference	Workplace exposure standards for airborne contaminants (2025)
Aluminum (7429-90-5)	
Australia - Occupational Exposure Limits	
Local name	Aluminium
OES TWA	10 mg/m <sup>3</sup> (dust) 5 mg/m <sup>3</sup> (welding fume)
Regulatory reference	Workplace exposure standards for airborne contaminants (2025)

#### 8.2. Biological Monitoring

No additional information available

#### 8.3. Engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
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#### 8.4. Individual protection measures, such as personal protective equipment (PPE)

Personal protective equipment	: Wear recommended personal protective equipment.
Hand protection	: Protective gloves
Eye protection	: Safety glasses
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment (EN 136/140/145)
Environmental exposure controls	: Avoid release to the environment.

### SECTION 9: Physical and chemical properties

Physical state	: Solid
Colour	: White
Odour	: No data available
Odour threshold	: No data available
pH	: No data available
pH solution	: No data available

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Relative evaporation rate (butylacetate=1)	: No data available
Melting point / Freezing point	: No data available
Boiling point	: No data available
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Flammability	: No data available
Vapour pressure	: No data available
Relative density	: No data available
Density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: Not applicable
Explosive properties	: No data available
Explosive limits	: Not applicable
Minimum ignition energy	: No data available
Fat solubility	: No data available

### SECTION 10: Stability and reactivity

Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use.
Conditions to avoid	: None under recommended storage and handling conditions (see section 7).
Incompatible materials	: No additional information available
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

### SECTION 11: Toxicological information

Acute toxicity (oral)	: Not applicable
Acute toxicity (dermal)	: Not applicable
Acute toxicity (inhalation)	: Not applicable

#### Phosphoric acid, iron(2+) lithium salt (1:1:1) (15365-14-7)

LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method), Guideline: EU Method B.1 tris (Acute Oral Toxicity - Acute Toxic Class Method), Guideline: EPA OPPTS 870.1100 (Acute Oral Toxicity), Guideline: other:
LD50 dermal rat	> 2000 mg/kg (Source: ECHA_API)

#### Graphite (7782-42-5)

LD50 oral rat	> 2000 mg/kg Source: ECHA
LC50 Inhalation - Rat (Dust/Mist)	> 2000 mg/l Source: ECHA

#### Phosphate(1-), hexafluoro-, lithium (21324-40-3)

ATE AU (oral)	50 mg/kg bodyweight
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#### Copper Foil (7440-50-8)

LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal)), Guideline: EPA OTS 798.1100 (Acute Dermal Toxicity), Guideline: other:MAFF 4200 (1985)
LC50 Inhalation - Rat	> 5.11 mg/l air Animal: rat, Guideline: OECD Guideline 436 (Acute Inhalation Toxicity: Acute Toxic Class Method)

#### Aluminum (7429-90-5)

LD50 oral rat	> 15900 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
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Skin corrosion/irritation	: Not applicable
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Serious eye damage/irritation	: Not applicable
Respiratory or skin sensitization	: Not applicable
Germ cell mutagenicity	: Not applicable
Carcinogenicity	: Not applicable
Reproductive toxicity	: Not applicable
STOT-single exposure	: Not applicable
STOT-repeated exposure	: Not applicable
Aspiration hazard	: Not applicable

### SECTION 12: Ecological information

According to the National Code of Practice for the Preparation of Material Safety Data Sheets, Environmental classification information is not mandatory. Information relevant for GHS classification is available on request

#### 12.1. Ecotoxicity

Hazardous to the aquatic environment, short-term (acute)	: Not applicable
Hazardous to the aquatic environment, long-term (chronic)	: Not applicable

##### Phosphoric acid, iron(2+) lithium salt (1:1:1) (15365-14-7)

LC50 - Fish [1]	> 28 mg/l Test organisms (species): Cyprinus carpio
EC50 - Crustacea [1]	> 28 mg/l Test organisms (species): Daphnia magna

##### Graphite (7782-42-5)

LC50 - Fish [1]	> 100 mg/l (Exposure time: 96 h - Species: Danio rerio [semi-static] Source: ECHA)
EC50 - Crustacea [1]	100 mg/l Source: ECHA
ErC50 algae	100 mg/l Source: ECHA
NOEC (chronic)	47 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

##### Copper Foil (7440-50-8)

LC50 - Fish [1]	0.0068 – 0.0156 mg/l (Exposure time: 96 h - Species: Pimephales promelas Source: EPA)
EC50 - Crustacea [1]	0.03 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])

##### Aluminum (7429-90-5)

LC50 - Fish [1]	> 100 mg/l
EC50 - Other aquatic organisms [1]	> 100 mg/l waterflea

#### 12.2. Persistence and degradability

##### 16kWh Lithium Ion Battery

Persistence and degradability	No additional information available
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#### 12.3. Bioaccumulative potential

##### Phosphoric acid, iron(2+) lithium salt (1:1:1) (15365-14-7)

Partition coefficient n-octanol/water (Log Pow)	> 0.564 (at 20 °C)
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##### Copper Foil (7440-50-8)

Partition coefficient n-octanol/water (Log Pow)	-0.57 Source: EPISUITE
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### 12.4. Mobility in soil

#### Phosphoric acid, iron(2+) lithium salt (1:1:1) (15365-14-7)

Partition coefficient n-octanol/water (Log Pow) > 0.564 (at 20 °C)

#### Copper Foil (7440-50-8)

Partition coefficient n-octanol/water (Log Pow) -0.57 Source: EPISUITE

### 12.5. Other adverse effects




Ozone : Not classified

## SECTION 13: Disposal considerations

Regional legislation (waste) : Disposal must be done according to official regulations.  
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.  
Sewage disposal recommendations : Disposal must be done according to official regulations.  
Product/Packaging disposal recommendations : Comply with applicable regulations for solid waste disposal. Disposal must be done according to official regulations.  
Additional information : Do not re-use empty containers.  
Ecological waste information : The waste of the product should be considered as hazardous as the product itself, with the likelihood of impacting the environment in the same way. Consider the handling and disposal of the waste as defined by the product itself.

## SECTION 14: Transport information

In accordance with ADG / IMDG / IATA

ADG	IMDG	IATA
<b>14.1. UN number</b>		
3480	3480	3480
<b>14.2. UN Proper Shipping Name</b>		
LITHIUM ION BATTERIES	LITHIUM ION BATTERIES	Lithium ion batteries
<b>14.3. Transport hazard class(es)</b>		
9	9	9
		
<b>14.4. Packing group</b>		
Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>		
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No

### 14.6. Special precautions for user

Specific storage requirement : No data available  
Shock sensitivity : No data available

### 14.7. Additional information

Other information : No supplementary information available

#### Transport by road and rail

UN-No. (ADG) : 3480

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Special provision (ADG)	: 188, 230, 310, 348, 376, 377, 384, 387
Limited quantities (ADG)	: 0
Excepted quantities (ADG)	: E0
Packing instructions (ADG)	: P903, P908, P909, P910, P911, LP903, LP904, LP905, LP906

### Transport by sea

UN-No. (IMDG)	: 3480
Special provisions (IMDG)	: 188, 230, 310, 348, 376, 377, 384, 387
Limited quantities (IMDG)	: 0
Excepted quantities (IMDG)	: E0
Packing instructions (IMDG)	: P903, P908, P909, P910, P911, LP903, LP904, LP905, LP906
EmS-No. (Fire)	: F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS-No. (Spillage)	: S-I - SPILLAGE SCHEDULE India - FLAMMABLE SOLIDS (REPACKING POSSIBLE)
Stowage category (IMDG)	: A
Stowage and handling (IMDG)	: SW19
Properties and observations (IMDG)	: Electrical batteries containing lithium ion may react (e.g. flame, heat, emission of toxic, corrosive or flammable gases or vapours) or disassemble due to damage, defects or short circuit.

### Air transport

UN-No. (IATA)	: 3480
PCA Excepted quantities (IATA)	: E0
PCA Limited quantities (IATA)	: Forbidden
PCA limited quantity max net quantity (IATA)	: Forbidden
PCA packing instructions (IATA)	: Forbidden
PCA max net quantity (IATA)	: Forbidden
CAO packing instructions (IATA)	: See 965
CAO max net quantity (IATA)	: See 965
Special provisions (IATA)	: A88, A99, A154, A183, A201, A213, A331, A334, A802
ERG code (IATA)	: 12FZ

## 14.8. Hazchem or Emergency Action Code

Hazchem Code	: 2Y
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## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations

#### Australian Industrial Chemicals Introduction Scheme (AICIS)

Australian Inventory of Industrial Chemicals (AICIS Inventory) status	: All substance(s) listed on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory) except Phosphoric acid, iron(2+) lithium salt (1:1:1) (15365-14-7)
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### 15.2. International agreements

No additional information available

## SECTION 16: Other information

Revision date	: 12/31/2025
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Safety Data Sheet (SDS), Australia

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.