SAFETY DATA SHEET

Lithium ion Battery Module HV2600
Maitian Energy Co., Ltd.

According to GHS (Eighth Revised Edition)

Section 1  Product and Company Identification

> Product Identifier

Product Name  Lithium ion Battery Module HV2600
Synonyms  -

> Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Relevant Identified Uses  Please consult manufacturer.
Uses Advised Against  Please consult manufacturer.

> Details of the Supplier of the Safety Data Sheet

Applicant Name  Maitian Energy Co., Ltd.
Application Address  Room A203, Building C, No.205, Binhai Six Road, New Airport Industry Area, Longwan District, Wenzhou, Zhejiang Province
Applicant Post Code  325058
Applicant Telephone  +86-510-68092998
Applicant Fax  ——
Applicant E-mail  liqin@fox-ess.com
Supplier Name  Maitian Energy Co., Ltd. Wuxi Branch
Supplier Address  No.11 Lijiang Road, Xinwu District, Wuxi City, Jiangsu Province, China
Supplier Post Code  214028
Supplier Telephone  +86-510-68092998
Supplier Fax  ——
Supplier E-mail  liqin@fox-ess.com

> Emergency Phone Number

Emergency Phone Number  +86-510-68092998

Section 2  Hazards Identification

Hazard class and label elements of the product according to GHS (the eighth revised edition):

> GHS Hazard Class

This product meets the definition of an article. Under the Globally Harmonized System of Classification and Labeling of Chemicals (GHS), “Articles” as defined in the Hazard Communication Standard (29 CFR 1910.1200) of the Occupational Safety and Health Administration of the United States of America, or by similar definition, are outside the scope of the system. [Rev.8 (2019) Part 1.3.2.1.1]

> GHS Label Elements
Section 3  Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration (weight percent, %)</th>
<th>CAS No.</th>
<th>EC No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum Foil</td>
<td>3.5</td>
<td>7429-90-5</td>
<td>231-072-3</td>
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<tr>
<td>Copper Foil</td>
<td>7.8</td>
<td>7440-50-8</td>
<td>231-159-6</td>
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<tr>
<td>Lithium Iron Phosphate</td>
<td>34.1</td>
<td>15365-14-7</td>
<td>-</td>
</tr>
<tr>
<td>Carbon (proprietary)</td>
<td>16.7</td>
<td>7782-42-5</td>
<td>231-955-3</td>
</tr>
<tr>
<td>Separator (proprietary)</td>
<td>3</td>
<td>9003-07-0</td>
<td>-</td>
</tr>
<tr>
<td>Electrolyte (proprietary)</td>
<td>20.3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Aluminum Alloy</td>
<td>14.6</td>
<td>7429-90-5</td>
<td>231-072-3</td>
</tr>
</tbody>
</table>

Section 4  First Aid Measures

> Description of First Aid Measures

**General Advice**
Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.

**Eye Contact**
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.

**Skin Contact**
Take off contaminated clothing and shoes immediately. Wash off with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.

**Ingestion**
Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.

**Inhalation**
Move victim into fresh air. If breathing is difficult, give oxygen. Do not use mouth to mouth resuscitation if victim ingested or inhaled the substance. If not breathing, give artificial respiration and consult a physician immediately.

**Protecting of First-aiders**
Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.
Most Important Symptoms and Effects, both Acute and Delayed

1. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

Indication of Any Immediate Medical Attention and Special Treatment Needed

1. Treat symptomatically.
2. Symptoms may be delayed.

Section 5  Fire Fighting Measures

Extinguishing Media

Suitable Extinguishing Media
Dry chemical, carbon dioxide or alcohol-resistant foam.

Unsuitable Extinguishing Media
Do not use a solid water stream as it may scatter or spread fire.

Specific Hazards Arising from the Substance or Mixture

1. Containers may explode when heated.
2. Fire exposed containers may vent contents through pressure relief valves.
3. May expand or decompose explosively when heated or involved in fire.

Advice for Firefighters

1. As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear.
2. Fight fire from a safe distance, with adequate cover.
3. Prevent fire extinguishing water from contaminating surface water or the ground water system.

Section 6  Accidental Release Measure

Personal Precautions, Protective Equipment and Emergency Procedures

1. Ensure adequate ventilation. Remove all sources of ignition.
2. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
3. Use personal protective equipment. Avoid breathing vapours, mist, gas or dust.

Environmental Precautions

1. Prevent further leakage or spillage if safe to do so.
2. Discharge into the environment must be avoided.

Methods and Materials for Containment and Cleaning Up

1. Absorb spilled material in dry sand or inert absorbent. In case of large amount of spillage, contain a spill by bunding.
2. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.
3. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

Section 7  Handling and Storage

Precautions for Handling
1 Handling is performed in a well ventilated place.
2 Wear suitable protective equipment.
3 Avoid contact with skin and eyes.
4 Keep away from heat/sparks/open flames/ hot surfaces.
5 Take precautionary measures against static discharges.

**Precautions for Storage**
1 Keep containers tightly closed.
2 Keep containers in a dry, cool and well-ventilated place.
3 Keep away from heat/sparks/open flames/ hot surfaces.
4 Store away from incompatible materials and foodstuff containers.

## Section 8 Exposure Controls/Personal Protection

### Control Parameters

#### Occupational Exposure Limit Values

<table>
<thead>
<tr>
<th>Component</th>
<th>Country/Region</th>
<th>Limit Value - Eight Hours</th>
<th>Limit Value - Short Term</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>ppm</td>
<td>mg/m³</td>
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<tr>
<td>Aluminum Alloy 7429-90-5</td>
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<tr>
<td></td>
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<td></td>
<td>Australia</td>
<td>-</td>
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</tr>
<tr>
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<td>Poland</td>
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<td></td>
<td>Australia</td>
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</table>

**Biological Limit Values**
No information available

**Monitoring Methods**
EN 14042 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

GBZ/T 160 Determination of toxic substances in workplace air (Series effective standard) and GBZ/T 300 Determination of toxic substances in workplace air (Series standard).

### Engineering Controls

1. Ensure adequate ventilation, especially in confined areas.
2. Ensure that eyewash stations and safety showers are close to the workstation location.
3. Use explosion-proof electrical/ventilating/lighting/equipment.
4. Set up emergency exit and necessary risk-elimination area.

### Personal Protection Equipment

#### Eye Protection

Tightly fitting safety goggles (approved by EN 166(EU) or NIOSH (US).

#### Hand Protection

Wear protective gloves (such as butyl rubber), passing the tests according to EN 374(EU), US F739 or AS/NZS 2161.1 standard.

#### Respiratory Protection

If exposure limits are exceeded or if irritation or other symptoms are experienced, use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges.

#### Skin and Body Protection

Wear fire/flame resistant/retardant clothing and antistatic boots.

### Section 9  Physical and Chemical Properties

- **Appearance**: Lithium-ion batteries, individually packaged, 51.2V 50Ah 2560Wh
- **Odor**: No information available
- **Odor Threshold**: No information available
- **Melting Point/Freezing Point (°C)**: No information available
- **Flash Point (°C)(Closed Cup)**: Not applicable
- **Flammability**: No information available
- **Vapor Pressure (KPa)**: Not applicable
- **Relative Density (Water = 1)**: No information available
- **n-Octanol/Water Partition Coefficient**: No information available
- **Decomposition Temperature (°C)**: No information available
- **Particle characteristics**: No information available

- **pH**: No information available
- **Initial Boiling Point and Boiling Range (°C)**: No information available
- **Evaporation Rate**: Not applicable
- **Upper/lower explosive limits [%(v/v)]**: Upper limit: No information available; Lower limit: No information available
- **Relative Vapour Density (Air = 1)**: Not applicable
- **Solubility**: No information available
- **Auto-Ignition Temperature (°C)**: No information available
- **Kinematic Viscosity (mm²/s)**: Not applicable

### Section 10  Stability and Reactivity

- **Reactivity**: Contact with incompatible substances can cause decomposition or other chemical reactions.
- **Chemical Stability**: Stable under proper operation and storage conditions.
- **Possibility of Hazardous Reactions**: Ultrafine powder will self-ignite in the air at room temperature. Reacts severely with halogens, interhalogens or other strong oxidants, or causes a fire. Mixtures with metallic acetylene, when heated, cause a fire or incandescence.
- **Conditions to Avoid**: Incompatible materials, heat, flame and spark.
- **Incompatible Materials**: Oxidants, halogen, interhalogen and mercury. Halogen, interhalogen, strong
oxidant, water and acids. Metal acetylide, halogen, interhalogen, halogen oxides, nitric acid, nitrous oxide, nitrates, nitrites, halogen oxyacid salts, chromates, permanganates, inorganic peroxides, metal oxides and peroxyformic acid.

Hazardous Decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11 Toxicological Information

> Acute Toxicity
No information available

> Skin Corrosion/Irritation
No information available

> Serious Eye Damage/Irritation
No information available

> Skin Sensitization
No information available

> Respiratory Sensitization
No information available

> Germ Cell Mutagenicity
No information available

> Carcinogenicity

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</table>

> Reproductive Toxicity
No information available

> Reproductive Toxicity (Additional)
No information available
> STOT-Single Exposure
No information available

> STOT-Repeated Exposure
No information available

> Aspiration Hazard
No information available

### Section 12 Ecological Information

#### Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No.</th>
<th>Fish</th>
<th>Crustaceans</th>
<th>Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper Foil</td>
<td>7440-50-8</td>
<td>LC$_{50}$: 0.665mg/L (96h)(Fish)</td>
<td>EC$_{50}$: 0.02mg/L (48h)</td>
<td>ErC$_{50}$: 7.9mg/L (96h)</td>
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<td>Aluminum Foil</td>
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<td>LC$_{50}$: 1.55mg/L (96h)(Fish)</td>
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#### Chronic Aquatic Toxicity

<table>
<thead>
<tr>
<th>Component</th>
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<th>Crustaceans</th>
<th>Algae</th>
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<td>Aluminum Alloy</td>
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<td>NOEC: 1.55mg/L(Fish)</td>
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</table>

#### Others

| Persistence and Degradability | No information available |
| Bioaccumulative Potential | No information available |
| Mobility in Soil | No information available |

Results of PBT and vPvB Assessment

Aluminum Foil does not meet the criteria for PBT and vPvB according to Regulation (EC) No 1907/2006, annex XIII.

Copper Foil does not meet the criteria for PBT and vPvB according to Regulation (EC) No 1907/2006, annex XIII.

Lithium Iron Phosphate does not meet the criteria for PBT and vPvB according to Regulation (EC) No 1907/2006, annex XIII.

Carbon (proprietary) does not meet the criteria for PBT and vPvB according to Regulation (EC) No 1907/2006, annex XIII.

Separator (proprietary) does not meet the criteria for PBT and vPvB according to Regulation (EC) No 1907/2006, annex XIII.

Aluminum Alloy does not meet the criteria for PBT and vPvB according to Regulation (EC) No 1907/2006, annex XIII.

### Section 13 Disposal Considerations

Waste Chemicals
Before disposal should refer to the relevant national and local laws and regulation. Recommend the use of incineration disposal.
Section 14 Transport Information

Transporting Label

Marine pollutant: None

UN Number: 3480

UN Proper Shipping Name: LITHIUM ION BATTERIES (including lithium ion polymer batteries)

Transport Hazard Class: 9

Transport Subsidiary Hazard Class: NONE

Packing Group: Packagings shall conform to the packing group II performance level

Section 15 Regulatory Information

> International Chemical Inventory

<table>
<thead>
<tr>
<th>Component</th>
<th>EINECS</th>
<th>TSCA</th>
<th>DSL</th>
<th>IECSC</th>
<th>NZIoC</th>
<th>PICCS</th>
<th>KECI</th>
<th>AICS</th>
<th>ENCS</th>
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<tr>
<td>Copper Foil</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>×</td>
</tr>
<tr>
<td>Lithium Iron Phosphate</td>
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<td>×</td>
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<td>×</td>
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</tr>
</tbody>
</table>

Note: “√” Indicates that the substance included in the regulations
“×” That no data or included in the regulations

Section 16 Additional Information
> Disclaimer

This Safety Data Sheet (SDS) was prepared according to UN GHS (the 8th revised edition). The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user’s reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.