CRPIMOPCPI115VUSA
CRPIMOPCPI2500D

Pony Testing International Group

Report No.: MZIIVEKA32861716

# MSDS Report

| | |
|---|---|
| Sample Description & Model | Lithium Ion Batteries（Li-ion 25.2V 8.8Ah） |
| Applicant | DONGGUAN VICTORY BATTERY TECHNOLOGY CO., LTD |
| Address | HUDIE NO.2RD, TIANXIN VILLAGE, HUANGJIANGTOWN DONGGUAN CITY, GUANGDONG PROVINCE, PRC |

No.: MZIIVEKA32861716
Code: wos46z

# Material Safety Data Sheet

Reference to ST/SG/AC.10/30/Rev.5 (GHS)

## Section 1 - Chemical Product and Company Identification

**Chemical product identification**

**Sample Description:** Lithium Ion Batteries

**Sample Model:** Li-ion 25.2V 8.8Ah

**Recommended Uses:** N/A

**Restrictions on use:** N/A

**Supplier name:** DONGGUAN VICTORY BATTERY TECHNOLOGY CO., LTD

**Address:** HUDIE NO.2RD, TIANXIN VILLAGE, HUANGJIANGTOWN DONGGUAN CITY, GUANGDONG PROVINCE, PRC

**Phone number:** 0769-82605822

**FAX:** 0769-82605811

**E-mail:** 604819681@qq.com

**Emergency phone number:** 0769-82605822

## Section 2 - Hazards Identification

**Emergency overview:** N/A

**Classification according to GHS**

Not a dangerous substance according to GHS.

**Label elements**

| | |
|---|---|
| **Hazard pictogram(s):** | No available |
| Signal word: | No available |
| Hazard statement(s): | No available |

**Precautionary statement(s):**

| | |
|---|---|
| Prevention: | No available |
| Response: | No available |
| Disposal: | No available |

**Environmental hazards:** no relevant information.

**Important symptoms:** See Section 11 for more information.

**Emergency overview:** In case of accident or if you feel unwell, seek medical advice immediately. See Section 4 for more information.

## Section 3 - Composition, Information on Ingredients

**Chemical characterization: Mixture**

| Chemical Composition | CAS No. | EC# | Weight (%) |
|---|---|---|---|
| Lithium Cobalt Oxide | 12190-79-3 | 235-362-0 | 36~40 |
| Graphite Powder | 7782-42-5 | 231-955-3 | 22~25 |
| Aluminum Foil | 7429-90-5 | 231-072-3 | 5~10 |
| Copper Foil | 7440-50-8 | 231-159-6 | 12~15 |
| Lithium Hexafluorophosphate | 21324-40-3 | 244-334-7 | 12~15 |

## Section 4 - First Aid Measures

**Description of first aid measures**

**General information** No special measures required.

**After eye contact**

Flush eyes with plenty of water for several minutes while holding eyelids open. Get medical attention if irritation persists.

**After skin contact**

Remove contaminated clothing and shoes. Immediately wash with water and soap and rinse thoroughly. Wash clothing and shoes before reuse. If irritation occurs, get medical attention.

**After inhalation**

Remove victim to fresh area. Administer artificial respiration if breathing is difficult. Seek medical attention.

**After swallowing**

Do not induce vomiting. Get medical attention.

**Personal protective equipment for first-aid responders:** Not available.

**Most important symptoms/effects, acute and delayed:** Not available.

**Indication of immediate medical attention and special treatment needed:** Not available.

## Section 5 - Fire Fighting Measures

**Suitable extinguishing media:**

Use extinguishing agent suitable for local conditions and the surrounding environment . Such as dry powder , $CO_2$.

**Unsuitable extinguishing media:**

No further relevant information available.

**Specific Hazards arising from the chemical:**

Special hazards arising from the substance or mixture

Battery may burst and release hazardous decomposition products when exposed to a fire situation. Lithium ion batteries contain flammable electrolyte that may vent, ignite and produce sparks when subjected to high temperature(>150℃(302℉)), when damaged or abused (e.g. mechanical damage or electrical overcharging); may burn rapidly with flare-burning effect; may ignite other batteries in clothes proximity.

**Specific protective actions for fire-fighters:**

Protective equipment: Wear self-contained respirator. Wear fully protective impervious suit.

## Section 6 - Accidental Release Measures

**Personal precautions:**

Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation

**Protective equipment:**

No further relevant information available.

**Emergency procedures:**

Remove ignition sources, evacuate area. Sweep up using a method that does not generate dust. Collect as much of the spilled material as possible, placed the spilled material into a suitable disposal container. Keep spilled material out of sewers, ditches and bodies of water.

**Environmental precautions:**

Do not allow material to be released to the environment without proper governmental permits.

**Methods and materials for containment and cleaning up:**

All waste must refer to the United Nations, the national and local regulations for disposal.

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## Section 7 - Handling and Storage

**Precautions for safe handling:**

Consumption of food and beverage should be avoided in work areas.

Wash hands with soap and water before eating, drinking.

Ground containers when transferring liquid to prevent static accumulation and discharge.

**Information about fire and explosion protection**

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

**Conditions for safe storage, including any incompatibilities:**

**Requirements to be met by storerooms and receptacles**

Store in a cool, dry, well-ventilated place.

**Information about storage in one common storage facility**

Keep away from heat, avoiding the long time of sunlight.

**Further information about storage conditions**

Keep container tightly sealed.

**Specific and use**

No further relevant information available.

## Section 8 - Exposure Controls, Personal Protection

**Control parameters**

| CAS No. | ACGIH | NIOSH | OSHA |
|---|---|---|---|
| 12190-79-3 | TLV-TWA 0.02mg/m$^3$ | N/A | N/A |
| 7782-42-5 | TLV-TWA 2mg/m$^3$ | RELs-TWA 2.5mg/m$^3$ | PELs-TWA 15mppcf |
| 7429-90-5 | TLV-TWA 1mg/m$^3$ | RELs-TWA 5mg/m$^3$ | PELs-TWA 5mg/m$^3$<br>PELs-TWA 15mg/m$^3$ |
| 7440-50-8 | TLV-TWA 0.2mg/m$^3$<br>TLV-TWA 1mg/m$^3$ | RELs-TWA 1mg/m$^3$ | PELs-TWA 5mg/m$^3$<br>PELs-TWA 15mg/m$^3$ |
| 21324-40-3 | N/A | N/A | N/A |

**Appropriate engineering controls:**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

**Personal Protective Equipment**

**Respiratory protection:** Wear suitable protective mask in order to reduce the respiratory system. A large number of leakage, wear chemical protective clothing, including self-contained breathing apparatus.

**Hand Protection:** Wear appropriate protective gloves to reduce skin contact.

**Eyes Protection:** Wear safety goggles or eye protection combined with respiratory protection.

**Skin and Body Protection:** Working environment required, wear suitable protective clothing to minimize contact with skin. The type of protective equipment must be according to the concentration and the content of certain hazardous substances in the workplace.

## Section 9 - Physical and Chemical Properties

**Information on basic physical and chemical properties**

| | |
|---|---|
| **Colour:** | Black. |
| **Physical State:** | Prismatic. |
| **Odour:** | Not available. |
| **Odour threshold:** | Not available. |
| **pH:** | Not available. |
| **Melting point/freezing point:** | Not available. |
| **Initial boiling point and boiling range:** | Not available. |
| **Flash Point:** | Not available. |
| **Evaporation rate:** | Not available. |
| **Flammability (solid, gas):** | Not available. |
| **Explosion Limits (vol% in air):** | Not available. |
| **Vapour pressure, kPa at 20℃:** | Not available. |
| **Vapor density:** | Not available. |
| **Density/Relative density (water = 1):** | Not available. |
| **Solubility(ies):** | Not available. |
| **Partition coefficient: n-octanol/water:** | Not available. |
| **Auto-ignition temperature:** | Not available. |
| **Decomposition temperature:** | Not available. |
| **Viscosity:** | Not available. |

**Other information:**

| | |
|---|---|
| **Voltage** | 25.2V |
| **Electric capacity** | 8.8Ah |

## Section 10 - Stability and Reactivity

**Reactivity:** Data not available.

**Chemical stability:** Stable.

**Possibility of hazardous reactions:** Data not available.

**Conditions to Avoid:** Flames, sparks, and other sources of ignition, incompatible materials.

**Incompatibilities materials:** Oxidizing agents, acid, base.

**Hazardous decomposition products:** Carbon monoxide, carbon dioxide, lithium oxide fumes.

## Section 11 - Toxicological Information

**Acute Toxicity:**

| CAS No. | LC50/LD50 |
|---|---|
| 12190-79-3 | Not available. |
| 7782-42-5 | Not available. |
| 7429-90-5 | Not available. |
| 7440-50-8 | Oral (rat) LD50: 5800 mg/kg |
| 21324-40-3 | Not available. |

**Skin corrosion/irritation:** Not available.

**Serious eye damage/irritation:** Not available.

**Respiratory or Skin sensitization:** Not available.

**Germ Cell mutagenicity:** Not available.

**Carcinogenicity:** Not available.

**Reproductive toxicity:** Not available.

**Specific target organ toxicity-Single exposure:** Not available.

**Specific target organ toxicity-Repeated exposure:** Not available.

**Aspiration hazard:** Not available.

**Information on the likely routes of exposure:** Not available.

**Eye:** Not available.
**Skin:** Not available.
**Ingestion:** Not available.
**Inhalation:** Not available.

## Section 12 - Ecological Information

**Ecological 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.
**Other adverse effects:** No further relevant information available.

## Section 13 - Disposal Considerations

**Disposal methods:**
**Recommendation:**
Consult state, local or national regulations to ensure proper disposal.

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

## Section 14 - Transport Information

According to the Packing Instruction 965~967 of IATA DGR 56$^{th}$ Edition for transportation, or the special provision 188 of IMDG（36-12） or the <<Recommendations On The Transport Of Dangerous Goods-Model Regulations>> (18$^{th}$).

More information concerning shipping, testing, marking and packaging can be obtained from Label master at http://www.labelmaster.com.
Separate Lithium-ion batteries when shipping to prevent short-circuiting. They should be packed in strong packaging for support during transport. Take in a cargo of them without falling, dropping, and breakage. Prevent collapse of cargo piles and wet by rain.

**Transport Fashion:** By air, by sea, by railway, by road.

## Section 15 - Regulatory Information

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

| CAS No. | TSCA | IECSC | DSL/NDSL | EINECS/ ELINCS/ NLP |
|---|---|---|---|---|
| 12190-79-3 | Listed | Listed | Listed DSL | Listed |
| 7782-42-5 | Listed | Listed | Listed DSL | Listed |
| 7429-90-5 | Listed | Listed | Listed DSL | Listed |
| 7440-50-8 | Listed | Listed | Listed DSL | Listed |
| 21324-40-3 | Listed | Listed | Listed DSL | Listed |

## Section 16 - Additional Information

Issue Time: 2015-04-28

Issue Department: Technical department

Modification record:

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Other Information:

CAS: (Chemical Abstracts Service);

EC: (European Commission);

ACGIH: (American Conference of Governmental Industrial Hygienists);

NIOSH: (US National Institute for Occupational Safety and Health);

OSHA: (US Occupational Safety and Health);

TLV: (Threshold Limit Value)

TWA: (Time Weighted Average);

STEL: (Short Term Exposure Limit);

PEL: (Permissible Exposure Level);

REL: (Recommended Exposure Limit);

PC-STEL: (Permissible concentration-time weighted average);

PC-TWA: (Permissible concentration-short time exposure limit);

LC50: (Lethal concentration, 50 percent kill);

LD50: (Lethal dose, 50 percent kill);

IARC: (International Agency for Research on Cancer);
EC50: (Median effective concentration);
BCF: (Bioconcentration Factor);
BOD: (Biochemical oxygen demand);
NOEC: (No observed effect concentration);
NTP: (US National Toxicology Program);
RTECS: (Registry of Toxic Effects of Chemical Substances);
IATA: (International Air Transport Association);
IMDG: (International Maritime Dangerous Goods);
TDG: (Recommendations on the TRANSPORT OF DANGEROUS GOODS Model Regulations);
TOC: (Total Organic Carbon);
TSCA: (Toxic Substances Control Act of USA);
DSL: (the Domestic Substances List of Canada);
NDSL: (the Non-domestic Substances List of Canada)

***End of report***