

SAFETY DATA SHEET

HCS-2012 APPENDIX D TO §1910.1200

Version 1

Product Name Rechargeable Li-ion Battery GSP6532100 (30) 1800mAh 7.4V

Issue Date 16-Dec-2016

Revision date 16-Dec-2016

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name Rechargeable Li-ion Battery GSP6532100 (30) 1800mAh 7.4V
Chemical Name Rechargeable Li-ion Battery

Other means of identification

Voltage : 7.4V
Watt-Hour: 13.32Wh
Battery Weight: 63g

Recommended use of the chemical and restrictions on use

Recommended Use Power supply.
Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier GREAT POWER BATTERY (ZHUHAI) CO., LTD
Address XINQING TECHNOLOGY PARK, ZHUFENG AVENUE, JING AN TOWN,
DOUMEN DISTRICT, ZHUHAI CITY, GUANGDONG PROVINCE, CHINA
Postal Code 519100
Phone +86-756-3922111
FAX +86-756-3922334
E-mail renzheng@greatpower.net

Emergency telephone number

+86-756-3922334

2. HAZARDS IDENTIFICATION

GHS Classification

Not classified according to GHS as an article.

Label elements

Symbols/Pictograms None
Signal word None
Hazard Statements None
Precautionary Statements
Prevention None
Response None
Storage None
Disposal None

Hazards not otherwise classified (HNOC)

No information available

Unknown acute toxicity

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature Mixture

| Chemical Name | CAS No | Weight-% |
|---------------|--------|----------|
|---------------|--------|----------|

| | | |
|--|------------|---------|
| Lithium Cobalt Oxide (CoLiO ₂) | 12190-79-3 | 30 - 60 |
| Graphite | 7782-42-5 | 10 - 30 |
| Phosphate(1-), hexafluoro-, lithium | 21324-40-3 | 5 - 10 |
| Dimethyl carbonate | 616-38-6 | 5 - 10 |
| Cellulose, carboxymethyl ether | 9000-11-7 | 1 - 5 |
| Polypropylene | 9003-07-0 | 1 - 5 |
| Carboxymethyl cellulose | 9000-11-7 | 1 - 5 |
| Nickel | 7440-02-0 | 1 - 5 |
| Aluminum foil | 7429-90-5 | 1 - 5 |

4. FIRST AID MEASURES

Description of first aid measures

| | |
|----------------|---|
| General advice | No hazards which require special first aid measures. |
| Inhalation | Not an expected route of exposure. |
| Skin Contact | No special technical protective measures are necessary. |
| Eye contact | Not an expected route of exposure. |
| Ingestion | Rinse mouth Get medical attention Never give anything by mouth to an unconscious person |

Most important symptoms and effects, both acute and delayed

No information available.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Extinguishing media

| | |
|--------------------------------|---|
| Suitable extinguishing media | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Unsuitable extinguishing media | No information available. |

Specific hazards arising from the chemical

Thermal decomposition can lead to release of irritating and toxic gases and vapors
Keep product and empty container away from heat and sources of ignition
In the event of fire and/or explosion do not breathe fumes

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.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation, especially in confined areas
ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area)

Methods and material for containment and cleaning up

Pick up and transfer to properly labeled containers
Pick up and transfer to properly labeled containers

Should not be released into the environment

7. HANDLING AND STORAGE

Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice
 Ensure adequate ventilation, especially in confined areas
 Keep away from heat, sparks, flame and other sources of ignition
 Do not eat, drink or smoke when using this product

Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place
 Keep away from heat

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

| Chemical Name | ACGIH TLV | OSHA PEL | NIOSH IDLH | Denmark | European Union |
|--|---|--|--|--|----------------|
| Lithium Cobalt Oxide (CoLiO ₂) (CAS #: 12190-79-3) | TWA: 0.02 mg/m ³ Co | - | - | TWA: 0.01 mg/m ³ | - |
| Graphite (CAS #: 7782-42-5) | TWA: 2 mg/m ³ respirable fraction all forms except graphite fibers | - | - | TWA: 2.5 mg/m ³ | - |
| Phosphate(1-), hexafluoro-, lithium (CAS #: 21324-40-3) | TWA: 2.5 mg/m ³ F | - | - | TWA: 2.5 mg/m ³ | - |
| Nickel (CAS #: 7440-02-0) | TWA: 1.5 mg/m ³ inhalable fraction | TWA: 1 mg/m ³ (vacated) TWA: 1 mg/m ³ | IDLH: 10 mg/m ³ IDLH: 10 mg/m ³ Ni TWA: 0.015 mg/m ³ TWA: 0.015 mg/m ³ except Nickel carbonyl Ni | TWA: 0.05 mg/m ³ | - |
| Aluminum foil (CAS #: 7429-90-5) | TWA: 1 mg/m ³ respirable fraction | TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 15 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 5 mg/m ³ Al Aluminum | TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust TWA: 5 mg/m ³ Al | TWA: 5 mg/m ³ TWA: 2 mg/m ³ | - |

| Chemical Name | Latvia | France | Finland | Germany | Italy |
|----------------------------------|-----------------------------|---|---|--|-------|
| Nickel (CAS #: 7440-02-0) | TWA: 0.05 mg/m ³ | TWA: 1 mg/m ³ | TWA: 1 mg/m ³ TWA: 0.1 mg/m ³ | Skin | - |
| Aluminum foil (CAS #: 7429-90-5) | TWA: 2 mg/m ³ | TWA: 10 mg/m ³ TWA: 5 mg/m ³ | TWA: 1.5 mg/m ³ | TWA: 4 mg/m ³ TWA: 1.5 mg/m ³ | - |

| Chemical Name | Poland | Portugal | Spain | Switzerland | Netherlands |
|----------------------------------|--|--|--|----------------------------|-----------------------------|
| Nickel (CAS #: 7440-02-0) | TWA: 0.25 mg/m ³ | TWA: 1.5 mg/m ³ | TWA: 1 mg/m ³ | TWA: 0.5 mg/m ³ | - |
| Aluminum foil (CAS #: 7429-90-5) | TWA: 2.5 mg/m ³ TWA: 1.2 mg/m ³ | TWA: 10 mg/m ³ TWA: 5 mg/m ³ | TWA: 10 mg/m ³ TWA: 5 mg/m ³ | TWA: 3 mg/m ³ | TWA: 0.05 mg/m ³ |

| Chemical Name | Norway | United Kingdom | Australia | Austria | Belgium |
|--|---|---|---|--|---------|
| Lithium Cobalt Oxide (CoLiO ₂) (CAS #: 12190-79-3) | - | - | - | Skin | - |
| Graphite (CAS #: 7782-42-5) | - | - | 3 mg/m ³ | STEL 10 mg/m ³ TWA: 5 mg/m ³ | - |
| Phosphate(1-), hexafluoro-, lithium (CAS #: 21324-40-3) | - | - | 2.5 mg/m ³ | - | - |
| Nickel (CAS #: 7440-02-0) | TWA: 0.05 mg/m ³ STEL: 0.15 mg/m ³ | STEL: 1.5 mg/m ³ TWA: 0.5 mg/m ³ | 1 mg/m ³ | - | - |
| Aluminum foil (CAS #: 7429-90-5) | TWA: 5 mg/m ³ STEL: 10 mg/m ³ | STEL: 30 mg/m ³ STEL: 12 mg/m ³ TWA: 10 mg/m ³ TWA: 4 mg/m ³ | 10 mg/m ³ 5 mg/m ³ | STEL 20 mg/m ³ TWA: 10 mg/m ³ | - |

Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas
Remove all sources of ignition

Individual protection measures, such as personal protective equipment

| | |
|--------------------------|---|
| Respiratory protection | If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations. |
| Hand Protection | No special technical protective measures are necessary. |
| Eye/face protection | No special technical protective measures are necessary. |
| Skin and body protection | Wear suitable protective clothing. |

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

| | |
|--------------------------------|------------------|
| Appearance | Solid |
| Color | Silver |
| Odor | Odorless |
| Odor Threshold | Not determined |
| pH | Not determined |
| Melting point/freezing point | Not determined |
| Boiling point / boiling range | Not determined |
| Flash point | Not applicable |
| Evaporation rate | Not determined |
| Flammability (solid, gas) | Not flammable |
| Flammability Limit in Air | Not determined |
| Vapor Pressure | Not applicable |
| Vapor density | Not determined |
| Density | Not determined |
| Relative density | Not determined |
| Bulk density | Not determined |
| Specific gravity | Not determined |
| Water solubility | Not determined |
| Partition coefficient (LogPow) | Not determined |
| Autoignition temperature | Not determined |
| Decomposition temperature | Not determined |
| Kinematic viscosity | Not determined |
| Dynamic viscosity | Not determined |
| Explosive properties | Not an explosive |
| Oxidizing properties | Not determined |

Other information

No information available

10. STABILITY AND REACTIVITY**Reactivity**

Stable under recommended storage and handling conditions (see SECTION 7, handling and storage).

Chemical stability

Stable under normal conditions

Possibility of Hazardous Reactions

None under normal processing

Conditions to avoid

Extremes of temperature and direct sunlight

Incompatible materials

None known based on information supplied

Hazardous Decomposition Products

None known based on information supplied

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

| | |
|--------------|--|
| Inhalation | Inhalation of vapors in high concentration may cause irritation of respiratory system |
| Eye contact | Contact with eyes may cause irritation |
| Skin Contact | Substance may cause slight skin irritation Ingestion may cause irritation to mucous membranes |

Information on toxicological effects

Acute toxicity

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|--------------------------------------|-----------------------|---------------------|------------------------|
| Dimethyl carbonate (CAS #: 616-38-6) | = 13000 mg/kg (Rat) | > 5 g/kg (Rabbit) | = 140 mg/L (Rat) 4 h |
| Polypropylene (CAS #: 9003-07-0) | >5 g/kg | - | - |
| Nickel (CAS #: 7440-02-0) | > 9000 mg/kg (Rat) | - | - |

Skin corrosion/irritation

Non-irritating to the skin

Serious eye damage/eye irritation

No eye irritation

Sensitization

No information available

Germ cell mutagenicity

No information available

Carcinogenicity

| Chemical Name | ACGIH | IARC | NTP | OSHA |
|--|-------|----------|---------------------------------|------|
| Lithium Cobalt Oxide (CoLiO ₂) (CAS #: 12190-79-3) | A3 | - | - | - |
| Nickel (CAS #: 7440-02-0) | - | Group 2B | Known Reasonably Anticipated | X |

Reproductive toxicity

No information available

STOT - single exposure

No information available

STOT - repeated exposure

No information available

Aspiration hazard

No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

| Chemical Name | Algae/aquatic plants EC50 | Fish LC50 | Crustacea EC50 |
|--|--|--|---|
| Lithium Cobalt Oxide (CoLiO2) (CAS #: 12190-79-3) | - | 275 mg/L/96h(Fundulus heteroclitus) | - |
| Nickel (CAS #: 7440-02-0) | 0.18 mg/L/72h Pseudokirchneriella subcapitata 0.174 - 0.311 mg/L/96h Pseudokirchneriella subcapitata static | 100 mg/L/96h Brachydanio rerio 1.3 mg/L/96h Cyprinus carpio semi-static 10.4 mg/L/96h Cyprinus carpio static | 100 mg/L/48h Daphnia magna 1 mg/L/48h Daphnia magna Static |

Persistence and degradability

No information available

Bioaccumulative potential

No information available

Mobility in soil

No information available

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes

Disposal should be in accordance with applicable regional, national and local laws and regulations

Contaminated packaging

Dispose of in accordance with federal, state and local regulations

| Chemical Name | RCRA | RCRA - Basis for Listing | RCRA - D Series Wastes | RCRA - U Series Wastes |
|---------------------|------|--|------------------------|------------------------|
| Nickel 7440-02-0 | - | Included in waste streams: F006, F039 | - | - |

This product contains one or more substances that are listed with the State of California as a hazardous waste.

| Chemical Name | California Hazardous Waste Status |
|---|-----------------------------------|
| Lithium Cobalt Oxide (CoLiO2) 12190-79-3 | Toxic |
| Nickel 7440-02-0 | Toxic powder Ignitable powder |
| Aluminum foil 7429-90-5 | Ignitable powder |

14. TRANSPORT INFORMATION

DOT / IMDG / IATA

The polymer lithium ion batteries has passed the test UN38.3

According to packing instruction PI965~PI967 section II of IATA DGR 56th Edition for transportation or the special provision 188 of IMDG or 49CFR 173. 185.

The products are not subject to dangerous goods.

| | |
|-----------------------------|--------------------------|
| UN/ID No. | Not regulated |
| Proper shipping name | Not regulated |
| Hazard Class | Not regulated |
| Packing Group | Not regulated |
| Special precautions | No information available |
| Marine pollutant | Not applicable |

15. REGULATORY INFORMATION

International Inventories

| Component | AICS | DSL/NDL | EINECS/ELI NCS | ENCS | IECSC | KECL | PICCS | TSCA |
|--|------|---------|-------------------|------|-------|------|-------|------|
| Lithium Cobalt Oxide (CoLiO2) 12190-79-3 (30 - 60) | X | X | X | X | X | X | - | X |
| Graphite 7782-42-5 (10 - 30) | X | X | X | - | X | X | X | X |
| Phosphate(1-), hexafluoro-, lithium 21324-40-3 (5 - 10) | X | X | X | X | X | X | X | X |
| Dimethyl carbonate 616-38-6 (5 - 10) | X | X | X | X | X | X | X | X |
| Cellulose, carboxymethyl ether 9000-11-7 (1 - 5) | X | X | - | - | X | - | - | - |
| Polypropylene 9003-07-0 (1 - 5) | X | X | - | X | X | X | X | X |
| Nickel 7440-02-0 (1 - 5) | X | X | X | - | X | X | X | X |
| Aluminum foil 7429-90-5 (1 - 5) | X | X | X | - | X | X | X | X |

"-" Not Listed

"X" Listed

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

| Chemical Name | SARA 313 - Threshold Values % |
|---------------------------|-------------------------------|
| Nickel - 7440-02-0 | 0.1 |
| Aluminum foil - 7429-90-5 | 1.0 |

SARA 311/312 Hazard Categories

Does not apply

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

| Chemical Name | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|---------------------|-----------------------------|------------------------|---------------------------|----------------------------|
| Nickel 7440-02-0 | - | X | X | - |

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

| Chemical Name | Hazardous Substances RQs | CERCLA/SARA RQ | Reportable Quantity (RQ) |
|---------------------|--------------------------|----------------|---|
| Nickel 7440-02-0 | 100 lb | - | RQ 100 lb final RQ RQ 45.4 kg final RQ |

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

| Chemical Name | California Proposition 65 |
|--------------------|---------------------------|
| Nickel - 7440-02-0 | Carcinogen |

U.S. State Right-to-Know Regulations

This product may contain substances regulated by state right-to-know regulations

| Chemical Name | New Jersey | Massachusetts | Pennsylvania |
|--------------------------------|------------|---------------|--------------|
| Dimethyl carbonate 616-38-6 | X | X | X |
| Aluminum foil 7429-90-5 | X | X | X |
| Nickel 7440-02-0 | X | X | X |

16. OTHER INFORMATION

Revision Note

| | |
|---------------|----------------|
| Issue Date | 16-Dec-2016 |
| Revision date | 16-Dec-2016 |
| Revision Note | Not applicable |

Key or legend to abbreviations and acronyms used in the safety data sheet

TWA - TWA (time-weighted average)

STEL - STEL (Short Term Exposure Limit)

Ceiling - Maximum limit value

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

----- End of Safety Data Sheet -----