SDS REPORT

Client Name	:	Guangxi Zhuoneng New Energy Technology Limited
Address	:	Area 1 Huangma Industrial Zone, Qinbei District, Qinzhou City, Guangxi Zhuang Autonomous Region, China
Product Name	:	Cylindrical lithium ion battery
Date	:	May, 18 , 2021

Shenzhen Anbotek Compliance Laboratory Limited

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SAFETY DATA SHEET

According to HCS-2012 APPENDIX D TO §1910.1200 (Version: 1.0/EN)

1. Identification

Sample name:	Cylindrical lithium ion battery
Battery model:	GZNS18650-2600
Rating:	Nominal Voltage: 3.7 V Rated Capacity:2600 mAh Weight: 46.5g
Manufacture:	The same as appliance
Address:	The same as appliance
Factory:	The same as appliance
Address:	The same as appliance
Telephone no:	0777-5812222
E-mail:	sale3@topsharp.hk
Date of received:	May, 14, 2021
Date of report:	May, 18, 2021

Written by: Jely Yang Approved by: Davis Yang

2. Hazard(s) identification

Classification

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200) This product is an article which is a sealed battery and as such does not require an MSDS per the OSHA hazard communication standard unless ruptured. The hazards indicated are for a ruptured battery.

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Skin sensitization	Category 1
Carcinogenicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 1

GHS Label elements, including precautionary statements

Emergency Overview

Signal word **Danger**

Hazard Statements

Causes skin irritation

Causes serious eye irritation

May cause an allergic skin reaction

Suspected of causing cancer

Causes damage to organs through prolonged or repeated exposures

This product is an article which contains a chemical substance. Safety information is given for exposure to the article as sold. Intended use of the product should not result in exposure to the chemical substance. This is a battery. In case of rupture: the above hazards exist.

Appearance Silver **Physical State** Solid containing liquid **Odor** None

Precautionary Statements - Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling
Contaminated work clothing should not be allowed out of the workplace
Wear protective gloves
Do not breathe dust/fume/gas/mist/vapors/spray
Do not eat, drink or smoke when using this product
Wear eye/face protection

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Precautionary Statements - Response
IF exposed or concerned: Get medical advice/attention
Specific treatment (see supplemental first aid instructions on this label)

Eyes
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention

Skin
IF ON SKIN: Wash with plenty of soap and water
Take off contaminated clothing and wash before reuse
If skin irritation or rash occurs: Get medical advice/attention

Precautionary Statements - Storage
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Not applicable
Unknown Toxicity
37.3% of the mixture consists of ingredient(s) of unknown toxicity

Other information
Very toxic to aquatic life with long lasting effects
Repeated or prolonged skin contact may cause allergic reactions with susceptible persons

Interactions with Other Chemicals
No information available.

3. Composition/Information on Ingredients

Chemical Name	Percent of Content	CAS No.
Lithium Cobalt Oxide	25	12190-79-3
Graphite	17	7782-42-5
Carbon black	8	1333-86-4
Carbonate, methyl ethyl	9	623-53-0
Phosphate(1-), hexafluoro-, lithium	9	21324-40-3
Copper	12	7440-50-8
Nickel	9	7440-02-0
Aluminum	11	7429-90-5

4. First-Aid Measures

(a) Description of first aid measures

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice / attention if you feel unwell.

Skin contact: Remove contaminated clothes and rinse the skin with plenty of water. Get medical advice /attention if you feel unwell.

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice / attention if you feel unwell.

Ingestion: Have victim drink 60 to 240 mL (2-8 oz.) of water. and DO NOT induce vomiting. Get medica laid.

(b) Most important symptoms/effects, acute and delayed

Contact with internal components may cause allergic skin sensitization (rash) and irritate eyes, skin, nose, throat,

respiratory system. Cobalt and Cobalt compounds are considered to be possible human carcinogen(s).

(c) Immediate medical attention and special treatment

No information available.

5. Fire-Fighting Measures

(a) Extinguishing media

Suitable extinguishing media: Use foam, dry powder or dry sand, CO2 as appropriate.

Unsuitable extinguishing media: No information available.

(b) Special hazards arising from the chemical

Under fire conditions, batteries may burst and release hazardous decomposition products when exposed to a fire situation. This could result in the release of flammable or corrosive materials. Hazardous combustion products: CO,CO2, Metal oxides, Irritating fumes.

(c) Special protective equipment and precautions for fire-fighters

Firefighters must wear fire resistant protective equipment and appropriate breathing apparatus. The staff must equip with filter mask (full mask) or isolated breathing apparatus. The staff must wear the clothes which can defense the fire and the toxic gas. Put out the fire in the upwind direction. Remove the container to the open space as soon as possible. Spray water on the containers in the fireplace to keep them cool until finish extinguishment.

6. Accidental Release Measures

(a) Personal precautions, protective equipment and emergency procedures

If the Rechargeable Li-ion Battery material is released, remove personnel from area until fumes dissipate. Provide maximum ventilation to clear out hazardous gases. The

preferred response is to leave the area, dispose the case after the batteries cool and vapors dissipate. Provide maximum ventilation. Avoid skin and eye contact or inhalation of vapors.

(b) Environmental Precautions

Prevent material from contaminating soil and from entering sewers or waterways.

(c) Methods and materials for containment and cleaning up

If battery casing is dismantled, small amounts of electrolyte may leak. Collect all released material in a plastic lined container. Dispose off according to the local law and rules. Avoid leached substances to get into the earth, canalization or waters.

7. Handling and Storage

(a) Precautions for safe handling

Always follow the warning information on the batteries and in the manuals of devices. Only use the recommended battery types. Keep batteries away from children. For devices to be used by children, the battery casing should be protected against unauthorized access. Unpacked batteries shall not lie about in bulk. In case of battery change always replace all batteries by new ones of identical type and brand. Do not swallow batteries. Do not throw batteries into water. Do not throw batteries into fire. Avoid deep discharge. Do not short-circuit batteries U sere commended charging time and current.

(b) Conditions for safe storage, including any incompatibilities

If the Rechargeable Li-ion Battery is subject to storage for such a long term as more than 3 months, it is recommended to recharge the Rechargeable Li-ion Battery periodically. Operating temperature: Charge:0°C~45°C. Discharge: -10°C~50°C. And recommended at -10°C~45°C for 1 month storage, at -10~35°C for 3 months storage. The capacity recovery rate in the delivery state (50% capacity of fully charged) after storage is assumed to be 80% or more. The voltage for along time storage shall be 3.6V~4.2V range. Do not storage Rechargeable Li-ion Battery haphazardly in a box or drawer where they may short-circuit each other or be short-circuited by other metal objects. Keep out of reach of children.

8. Handling and Storage

(a)Engineering Controls

Use local exhaust ventilation or other engineering controls to control sources of dust, mist, fumes and vapor. Keep away from heat and open flame. Store in a cool, dry place.

(b) Personal Protective Equipment

Respiratory Protection: Not necessary under normal conditions .Skin and body Protection: Not necessary under normal conditions, Wear neoprene or nitrile rubber gloves if handling an open or leaking battery.

Hand protection: Wear neoprene or natural rubber material gloves if handling an open

or leaking battery.

Eye Protection: Not necessary under normal conditions, wear safety glasses if handling an open or leaking battery.

(c) Other Protective Equipment

Have a safety shower and eye wash fountain readily available in the immediate work area.

(d) Hygiene Measures

Do not eat, drink, or smoke in work area. Maintain good housekeeping.

9. Physical and Chemical Properties

(a)Appearance	Solid
(b)Odor	Monotony
(c)Odor threshold	Not available.
(d)pH	Not available.
(e)Melting point/freezing point	Not available.
(f)Initial boiling point and boiling range	Not available.
(g)Flash poin	Not available.
(h)Evaporation rate	Not available.
(i)Flammability	Not available.
(j)Upper/lower flammability or explosive limits	Not available.
(k)Vapor pressure	Not available.
(l)Vapor density	Not available.
(m)Relative density	Not available.
(n)Solubility(ies)	Not available.
(o)Partition coefficient: n-octanol/water	Not available.
(p)Auto-ignition temperature	130°C
(q)Decomposition temperature	Not available.
(r)Viscosity	Not available.

10. Stability and Reactivity

(a) Reactivity

Stable under recommended storage and handling conditions.

(b) Chemical stability

Stable under normal conditions.

(c) Possibility of hazardous reactions

When heated above 150℃ the risk of rupture occurs. Due to special safety

construction, rupture implies cont release of pressure without ignition.

(d) Conditions to avoid

Do not subject Rechargeable Li-ion Battery to mechanical shock. Keep away from open flames, high temperature.

(e) Incompatible materials

Strong oxidizer, strong acid.

(f) Hazardous decomposition products

Under fire conditions, the electrode materials can form carcinogenic nickel and cobalt oxides.

11. Toxicological Information

(a) Information on the likely routes of exposure

Inhalation: Inhalation of a large number of vapors or fumes released due to heat may cause respiratory.

Ingestion: Ingestion of battery contents may cause mouth, throat and intestinal burns and damage.

Skin contact: Contact with battery electrolyte may cause burns and skin irritation.

Eye contact: Contact with battery electrolyte may cause burns. Eye damage is possible.

Under normal conditions (during charge and discharge) release of ingredients does not occur. If accidental release occurs see information in section 2, and 4. Swallowing of a battery can be harmful. Call the local Poison Control Centre for advice and follow-up.

(b) Information on toxicological characteristics

Acute toxicity: No data available.

Skin corrosion/irritation: The liquid in the battery irritates.

Serious eye damage/irritation: The liquid in the battery irritates.

Respiratory sensitization: The liquid in the battery may cause sensitization to some person.

skin sensitization: The liquid in the battery may cause sensitization to some person.

Carcinogenicity: Cobalt and Cobalt compounds are considered to be possible human carcinogen(s).

Germ Cell Mutagenicity: No data available.

Reproductive Toxicity: No data available.

STOT-Single Exposure: No data available.

STOT-Repeated Exposure: No data available.

Aspiration Hazard: No data available.

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12. Ecological Information

(a) Ecotoxicity

Water hazard class 1(Self-assessment): slightly hazardous for water.

(b) Persistence and Degradability

No information available.

(c) Bioac umulative potential

No information available.

(d) Mobility in soil

No information available.

(e) Other adverse effects

No information available.

13. Disposal Considerations

(a) Safe handling and methods of disposal

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

Product disposal recommendation: Observe local, state and federal laws and regulations.

Packaging disposal recommendation: Be aware discarded batteries may cause fire, tape the battery terminals to insulate them. Don't disassembly the battery. Completely discharge containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used. Observe local, state and federal laws and regulations The potential effects on the environment and human health of the substances used in batteries and accumulators;

the desirability of not disposing of waste batteries and accumulators as unsorted municipal waste and of participating in their separate collection so as to facilitate treatment and recycling.

14. Transport Information

According to PACKING INSTRUCTION 965 ~ 967 of IATA DGR 61st Edition for transportation, the special provision 188 of IMDG (inc c). The batteries should be securely packed and protected against short-circuits. Examine whether the package of the containers are integrate and tighten closed before transport. Take in a cargo of them without falling, dropping, and breakage. Prevent collapse of cargo piles. Don't put the goods together with oxidizer and chief food chemicals. The transport vehicle and ship should be cleaned and sterilized before transport. During transport, the vehicle should prevent exposure, rain and high temperature. For stopovers, the vehicle

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should be away from fire and heat sources. When transported by sea, the assemble place should keep away from bedroom and kitchen, and isolated from the engine room, power and fire source. Under the condition of Road Transportation, the driver should drive in accordance with regulated route, don't stop over in the residential area and congested area.

(a) UN number

3480&3481

(b) UN Proper shipping name

LITHIUM ION BATTERIES (including lithium ion polymer batteries) or; LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT or LITHIUM ION BATTERIES PACKED WITH EQUIPMENT (including lithium ion polymer batteries)

(c) Transport hazard class(es)

9

(d) Packing Instruction (if applicable)

965 II/ IB, 966 II, 967 II

(e) Marine pollutant (Yes/No)

No

(f) Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)

No information available.

(g) Special precautions

No information available.

15. Regulatory Information

OSHA hazard communication standard (29 CFR 1910.1200)

_____ **Hazardous** ____V____ **Non-hazardous**

16. Other Information

(a) Preparation and revision information

Date of previous revision: Not applicable. Date of this revision: 2020-11-17

Revision summary: The first New SDS

(b) Abbreviations and acronyms

TSCA: Toxic Substances Control Act, The American chemical inventory.
DSL: Domestic Substances List
EINECS: European Inventory of Existing Commercial chemical Substances
ENCS: a anese Existing and New Chemical Substances
ECL: Existing Chemicals List, the Korean chemical inventory
IECSC: Inventory of existing chemical substances in China.

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(c) Disclaimer

Because all of our batteries are defined as "articles", they are exempted from the requirements of the Hazard Communication Standard. The information in this SDS is provided all the relevant data fully and truly. However, the information is provided without any warranty on their absolute extensiveness and accuracy. This SDS was prepared to provide safety preventive measures for the users who have got professional training. The personal user who obtained
this SDS should make independent judgment for the applicability of this SDS under special conditions. In these special cases, we do not assume responsibility for the damage.

-- End of report --