

YiYang Corun Battery Co., Ltd.

SDS REPORT

Report No.....: KLY-SDS-0009 Manufacturer....:

YiYang Corun Battery Co., Ltd.

**Address.....: 168# GAOXIN ROAD GAOXIN DISTRICT, YIYANG
CITY HUNAN PROVINCE, P.R. China**

Date(s) of Report : 2019-01-08

SAFETY DATA SHEET

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

Section 1. Identification

(a) Product identifier

Product name: Lithium-ion Rechargeable Battery

(b) Other means of identification

Product description:

Model: ICP883256 5400mAh 3.7V 1S3P

Nominal Voltage: 3.7V

Rated Capacity: 5400mAh

Watt-hour: 19.98Wh

Weight: 110g

(c) Recommended use of the chemical and restrictions on use

Recommended use: No information available.

Restriction on use: No information available.

(d) Details of the supplier of the product

Company name(China): Yiyang Corun Battery Co., LTD

Address: 168# GAOXIN ROAD GAOXIN DISTRICT, YIYANG CITY HUNAN PROVINCE, P.R. China

Telephone No.: 086-737-6202906

Fax: ---

Section 2. Hazard(s) Identification

Classification:

This product (Lithium-ion Rechargeable Battery) is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Explosive risk	This product does not belong to the explosion dangerous goods.
Flammable risk	This product does not belong to the flammable material.
Oxidation risk	This product does not belong to the oxidation of dangerous goods.
Toxic risk	This product does not belong to the toxic dangerous goods.
Radioactive risk	This product does not belong to the radiation of dangerous goods.
Mordant risk	This product does not belong to the corrosion of dangerous goods.
Other risk	This product is Li-ion Rechargeable Battery Watt hour rate 19.98Wh, which belong to the Lithium ion batteries.

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.

In case of rupture: the below hazards exist.

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

GHS Label elements, including precautionary statements :

Emergency Overview

Hazard Statements:

- Causes skin irritation
- Causes serious eye damage
- Suspected of causing cancer



Appearance: No information available **Physical State:** Solid **Odor:** No information available

Precautionary Statements-Prevention	Do not breathe dust/fume/gas/mist/vapors/spray Wash face, hands and any exposed skin thoroughly after handling Wear protective gloves/protective clothing/eye protection/face protection Use only outdoors or in a well-ventilated area Do not eat, drink or smoke when using this product
Precautionary Statements-Response	Immediately call a POISON CENTER or doctor/physician Specific treatment (see supplemental first aid instructions on this label) Get medical advice/attention if you feel unwell
Eyes	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician
Skin	IF ON SKIN: Wash with plenty of soap and water If skin irritation occurs: Get medical advice/attention Take off contaminated clothing and wash before reuse
Precautionary Statements-Storage	Store locked up Store in a well-ventilated place. Keep container tightly closed
Precautionary Statements-Disposal	Dispose of contents/container to an approved waste disposal plant

CAS# 7429-90-5**Classification according to GHS**

Substances and mixtures which, in contact with water, emit flammable gases(2,3)

Specific target organ toxicity, repeated exposure (1) (Lung)

Hazardous to the aquatic environment, long-term hazard(4)

Label elements**Hazard pictogram(s):**

Signal word: Danger

Hazard statement(s):

H261 In contact with water releases flammable gas

H372 Causes damage to organs through prolonged or repeated exposure (Lung)

H413 May cause long lasting harmful effects to aquatic life

Precautionary statement(s):**Prevention:**

P223 Do not allow contact with water.

P231 +P232 Handle and store contents under inert gas, Protect from moisture.

P280 Wear protective gloves, protective clothing, eye protection and face protection.

P260 Do not breathe dust.

P264 Wash skin and clothing thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.

Response:

P302 +P335 +P334 IF ON SKIN: Brush off loose particles from skin and immerse in cool water.

P370 +P378 In case of fire: Use the appropriate media put out the fire.

P314 Get medical advice if you feel unwell.

Storage

P402 + P404 Store in a dry place. Store in a closed container.

Disposal:

P501 Contents handling to approved waste treatment plants.

CAS# 7440-50-8**Classification according to GHS**

Sensitisation, skin (1,1A,1B)

Specific target organ toxicity, single exposure (1) (digestive system)

Specific target organ toxicity, repeated exposure ; Respiratory tract irritation (3)

Label elements**Hazard pictogram(s):****Signal word:** Danger**Hazard statement(s):**

H317 May cause an allergic skin reaction

H370 Causes damage to organs (digestive system)

H335 May cause respiratory irritation

Precautionary statement(s):**Prevention:**

P260 Do not breathe dust, fume.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves, eye protection and face protection.

P264 Wash skin and clothing thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

Response:

P302 + P352 IF ON SKIN: Wash with plenty water.

P333 + P313 If skin irritation or rash occurs: Get medical advice.

P321 Specific treatment (See additional emergency instructions).

P362 + P364 Take off contaminated clothing and wash it before reuse.

P308 + P311 If exposed or concerned: call a POISON CENTER.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 Call a POISON CENTER if you feel unwell.

Storage

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

Disposal:

P501 Contents handling to approved waste treatment plants.

CAS# 108-32-7**Classification according to GHS**

Serious eye damage/eye irritation (2A)

Label elements**Hazard pictogram(s):****Signal word:** Warning**Hazard statement(s):**

H319 Causes serious eye irritation

Precautionary statement(s): Prevention:

P264 Wash skin and clothing thoroughly after handling.

P280 Wear eye protection and face protection.

Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do, Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice.

Storage

None

Disposal:

None

CAS# 616-38-6

Classification according to GHS

Flammable liquids(2)

Specific target organ toxicity, single exposure; Narcotic effects (3)

Reproductive toxicity(2)

Label elements



Hazard pictogram(s):

Signal word: Danger

Hazard statement(s):

H225 Highly flammable liquid and vapour

H336 May cause drowsiness or dizziness

H361 Suspected of damaging fertility or unborn child

Precautionary statement(s):

Prevention:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. NO smoking.

P233 Keep container tightly closed.

P240 Ground and bond container and receiving equipment.

P241 Use explosion-proof equipment.

P242 Use non-sparking tools.

P243 Take action to prevent static discharges.

P280 Wear protective gloves, protective clothing, eye protection and face protection.

P261 Avoid breathing gas, mist, vapours and spray.

P271 Use only outdoors or in a well-ventilated area.

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing.
Rinse skin with water.

P370 + P378 In case of fire: Use the appropriate media put out the fire.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 Call a POISON CENTER or doctor, if you feel unwell.

P308 + P313 If exposed or concerned: Get medical advice.

Storage

P403 + P235 Store in a well-ventilated place. Keep cool.

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

Disposal:

P501 Contents handling to approved waste treatment plants.

Other hazards

Physical and chemical hazards: See Section 10

Human health hazards: See Section 11

Environmental hazards: See Section 12

Section 3. Composition/Information on Ingredients

(a) Mixtures information

INGREDIENTS	Weight%	CAS NUMBER
Aluminum	11.9	7429-90-5
Carbon (Various Forms)	21.5	7440-44-0
Copper	8.5	7440-50-8
Lithium Cobalt Oxide	36.4	12190-79-3
Lithium Salts	1.5	21324-40-3
Nickel	4.8	7440-02-0
Organic Carbonate	10.5	102-09-0
Polymer	4.9	9002-88-4

Section 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 medical aid.

(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.

Section 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 filtermask (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.

Section 6. Accidental Release Measures

(a) Personal precautions, protective equipment and emergency procedures

If the Lithium-ion Rechargeable 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.

Section 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 Use recommended charging time and current.

(b) Conditions for safe storage, including any incompatibilities

If the Lithium-ion Rechargeable Battery is subject to storage for such a long term as more than 3 months, it is recommended to recharge the Lithium-ion Rechargeable Battery periodically. Operating temperature: Charge: 0°C~45°C. Discharge: -20°C~60°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 a long time storage shall be 7.4V~8.4V range per Battery block. Do not storage Lithium-ion Rechargeable 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.

Section 8. Exposure Controls/Personal Protection

(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.

Section 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 applicable.	
(h)Evaporation rate	Not applicable.	
(i)Flammability	Non flammable.	
(j)Upper/lower flammability or explosive limits	Not available.	
(k)Vapor pressure	Not applicable.	
(l)Vapor density	Not available.	
(m)Relative density	Not available.	
(n)Solubility(ies)	Insoluble in water.	
(o)Partition coefficient: n-octanol/water	Not available.	
(p)Auto-ignition temperature	130°C	
(q)Decomposition temperature	Not available.	
(r)	Viscosity	Not available.

Section 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°C 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 Lithium-ion Rechargeable 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.

Section 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.

Section 12. Ecological Information

(a) Ecotoxicity

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

(b) Persistence and Degradability

No information available.

(c) Bioaccumulative potential

No information available.

(d) Mobility in soil

No information available.

(e) Other adverse effects

No information available.

Section 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.

Section 14. Transport Information

According to PACKING INSTRUCTION 965 ~ 967 of IATA DGR 60th Edition for transportation, the special provision 188 of IMDG (inc Amdt 39-18). 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 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

