BATTERY DECLARATION According to UN3481

The undersigned: **Zodiac Pool Care Europe**
ZA de la Balme
BP42 – 31450 BELBERAUD – FRANCE

Declares under its sole responsibility that **ELECTRIC ROBOTIC SWIMMING POOL CLEANERS**

Model: **ET3101**

Sku: **WR000504 / WR000625 / WR000657**

Brand : **ZODIAC**

Contain the **RECHARGEABLE LITHIUM-ION BATTERY**

Model: **18650 – 6S2P**

Supplier: **SHENZHEN RYDER ELECTRONICS CO., LTD.**

whose Material Safety Data Sheet according to UN3481 is attached.

Belberaud, May 9th 2025

Authorized signatory

Rémi DELOCHE
Site Director / R&D Director

Material Safety Data Sheet

Product:	Rechargeable Lithium ion battery
Model/type reference:	18650-6S2P
Nominal Voltage:	21.6V
Rated Capacity:	5100mAh (110.16Wh)
Applicant:	SHENZHEN RYDER ELECTRONICS CO., LTD.
Address:	Building C, Langkou Huaming Industrial Plant, Langkou Community, Dalang Street, Longhua District, Shenzhen City, Guangdong Province, P.R. China
Report No:	P22063000401
Effective date:	2022-06-30
Revision date:	2022-06-30

Laboratory:	**Shenzhen NTEK New Energy Technology Co., Ltd.** Room 101, Building C, Fenda Hi-Tech Park, Sanwei Community, Hangcheng Subdistrict, Bao'an District, Shenzhen, Guangdong, China.

Compiled by (name+ signature) ..: Bill Ye

Approved by (name+ signature) ..: Jesse Zhang

Shenzhen NTEK New Energy Technology Co., Ltd. Report Seal

Section 1- Chemical Product and Company Identification

Product Identification: Rechargeable Lithium ion battery
Model No.: 18650-6S2P
Manufacturer's / Supplier Name: SHENZHEN RYDER ELECTRONICS CO., LTD.
Address: Building C, Langkou Huaming Industrial Plant, Langkou Community, Dalang Street, Longhua District, Shenzhen City, Guangdong Province, P.R. China
Telephone number of the supplier: +86-755-32903801
Emergency Telephone No. (24h): +86-755-32903801
Fax: +86-755-32903781
E-mail address: qc@ryderbattery.com
Referenced documents: ISO 11014:2009 Safety data sheet for chemical products
Version number: V1.0

Section 2 – Hazards Identification

Preparation hazards and classification	Not dangerous with normal use. Do not dismantle, open or shred the Rechargeable Lithium ion battery ingredients contained within or their ingredients products could be harmful.
Apperance, Color, and Odor	Solid object with no odor, no color.
Primary Route(s) of Exposure	These chemicals are contained in a sealed enclosure. Risk of exposure occurs only if the cell is mechanically, thermally or electrically abused to the point of compromising the enclosure. If this occurs, exposure to the electrolyte solution contained within can occur by Inhalation, Ingestion, Eye contact and Skin contact
Potential Health Effects:	**ACUTE (short term): see** Section 8 for exposure controls In the event that this battery has been ruptured, the electrolyte solution contained within the battery would be corrosive and can cause burns. **Inhalation:** Inhalation of materials from a sealed battery is not an expected route of exposure. Vapors or mists from a ruptured battery may cause respiratory irritation. **Ingestion:** Swallowing of materials from a sealed battery is not an expected route of exposure. Swallowing the contents of an open battery can cause serious chemical burns of mouth, esophagus, and gastrointestinal tract. **Skin:** Contact between the battery and skin will not cause any harm. Skin contact with contents of an open battery can cause severe irritation or burns to the skin. **Eye:** Contact between the battery and the eye will not cause any harm. Eye contact with contents of an open battery can cause severe irritation or burns to the eye. **CHRONIC (long term):** see Section 11 for additional toxicological data
Medical Conditions Aggravated by Exposure	Not applicable
Reported as carcinogen	Not applicable

Section 3 – Composition/Information on Ingredients

Rechargeable Lithium ion battery is a mixture.

Hazardous Ingredients (Chemical Name)	Concentration or concentration ranges (%)	CAS Number
Cobalt lithium manganese nickel oxide	35	182442-95-1
Graphite	25	7782-42-5
Ethylene carbonate	5	96-49-1
Dimethyl carbonate	8	616-38-6
Lithium hexafluorophosphate	5	21324-40-3
Other	22	N/A

Labeling according to EC directives.
No symbol and risk phrase are required.
Note: CAS number is Chemical Abstract Service Registry Number.
N/A=Not applicable.

Section 4 – First-aid Measures

Inhalation	If contents of an opened battery are inhaled, remove source of contamination or move victim to fresh air. Obtain medical advice.
Skin contact	If skin contact with contents of an open battery occurs, as quickly as possible remove contaminated clothing, shoes and leather goods. Immediately flush with lukewarm, gently flowing water for at least 30 minutes. If irritation or pain persists, seek medical attention. Completely decontaminate clothing, shoes and leather goods before reuse or discard.
Eye contact	If eye contact with contents of an open battery occurs, immediately flush the contaminated eye(s) with lukewarm, gently flowing water for at least 30 minutes while holding the eyelids open. Neutral saline solution may be used as soon as it is available. If necessary, continue flushing during transport to emergency care facility. Take care not to rinse contaminated water into the unaffected eye or onto face. Quickly transport victim to an emergency care facility.
Ingestion	If ingestion of contents of an open battery occurs, never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Have victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITING. Have victim drink 60 to 240 mL (2-8 oz.) of water. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Have victim rinse mouth with water again. Quickly transport victim to an emergency care facility.

Section 5 – Fire-fighting Measures

Flammable Properties	In the event that this battery has been ruptured, the electrolyte solution contain within the battery would be flammable. Like any sealed container, battery cells may rupture when exposed to excessive heat; this could result in the release of flammable or corrosive materials.

Suitable extinguishing Media	Use extinguishing media suitable for the materials that are burning.
Unsuitable extinguishing Media	Not available
Explosion Data	**Sensitivity to Mechanical Impact:** This may result in rupture in extreme cases **Sensitivity to Static Discharge:** Not Applicable
Specific Hazards arising from the chemical	Fires involving Rechargeable Lithium ion battery are controlled with water. When water is used, however, hydrogen gas may evolve. In a confined space, hydrogen gas can form an explosive mixture. In this situation, smothering agents are recommended to extinguish the fire
Protective Equipment and precautions for firefighters	As for any fire, evacuate the area and fight the fire from a safe distance. Wear a pressure-demand, self-contained breathing apparatus and full protective gear. Fight fire from a protected location or a safe distance. Use NIOSH/MSHA approved full-face self-contained breathing apparatus (SCBA) with full protective gear.
NFPA	Health: 0 Flammability: 0 Instability: 0

Section 6 – Accidental Release Measures

Personal Precautions, protective equipment, and emergency procedures	Restrict access to area until completion of clean-up. Do not touch the spilled material. Wear adequate personal protective equipment as indicated in Section 8.
Environmental Precautions	Prevent material from contaminating soil and from entering sewers or waterways.
Methods and materials for Containment	Stop the leak if safe to do so. Contain the spilled liquid with dry sand or earth. Clean up spills immediately.
Methods and materials for cleaning up	Absorb spilled material with an inert absorbent (dry sand or earth). Scoop contaminated absorbent into an acceptable waste container. Collect all contaminated absorbent and dispose of according to directions in Section 13. Scrub the area with detergent and water; collect all contaminated wash water for proper disposal.

Section 7 – Handling and Storage

Handling	Don't handle Rechargeable Lithium ion battery with metalwork. Do not open, dissemble, crush or burn battery. Ensure good ventilation/ exhaustion at the workplace. Prevent formation of dust. Information about protection against explosions and fires: Keep ignition sources away- Do not smoke.
Storage	If the Rechargeable Lithium ion battery is subject to storage for such a long term as more than 3 months, it is recommended to recharge the Rechargeable Lithium ion battery periodically. 3 months: -10°C~+40°C, 45 to 85%RH And recommended at 0°C~+35°C for long period storage. The capacity recovery rate in the delivery state (50% capacity of fully charged) after storage is assumed to be 80% or more. Do not store Rechargeable Lithium 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. Do not expose Rechargeable Lithium ion battery to heat or fire. Avoid storage in direct sunlight. Do not store together with oxidizing and acidic materials.

Section 8 – Exposure Controls and Personal Protection

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.
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.

Other Protective Equipment	Have a safety shower and eye wash fountain readily available in the immediate work area.
Hygiene Measures	Do not eat, drink, or smoke in work area. Maintain good housekeeping.

Section 9 - Physical and Chemical Properties

Physical State	Form: Solid
	Color: Blue
	Odor: Odorless

Change in condition:	
pH, with indication of the concentration	Not applicable
Melting point/freezing point	Not available.
Boiling Point, initial boiling point and Boiling range:	Not available.
Flash Point	Not available.
Upper/lower flammability or explosive limits	Not available.
Vapor Pressure:	Not applicable
Vapor Density: (Air = 1)	Not applicable
Density/relative density	Not available.
Solubility in Water:	Insoluble
n-octanol/water partition coefficient	Not available.
Auto-ignition temperature	130°C
Decomposition temperature	Not available.
Odout threshold	Not available.
Evaporation rate	Not available.
Flammability (soil, gas)	Not available.
Viscosity	Not applicable

Section 10 - Stability and Reactivity

Stability	The product is stable under normal conditions.
Conditions to Avoid (e.g. static discharge, shock or vibration)	Do not subject Rechargeable Lithium ion battery to mechanical shock. Vibration encountered during transportation does not cause leakage, fire or explosion. Do not disassemble, crush, short or install with incorrect polarity. Avoid mechanical or electrical abuse.

Incompatible Materials	Not Available
Hazardous Decomposition Products	This material may release toxic fumes if burned or exposed to fire
Possibility of Hazardous Reaction	Not Available

Section 11 - Toxicological Information

Irritation	Risk of irritation occurs only if the cell is mechanically, thermally or electrically abused to the point of compromising the enclosure. If this occurs, irritation to the skin, eyes and respiratory tract may occur.
Sensitization	Not Available
Neurological Effects	Not Available
Teratogenicity	Not Available
Reproductive Toxicity	Not Available
Mutagenicity (Genetic Effects)	Not Available
Toxicologically Synergistic Materials	Not Available

Section 12 - Ecological Information

General note:	Water hazard class 1(Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Anticipated behavior of a chemical product in environment/possible environmental impace/ecotoxicity	Not Available
Mobility in soil	Not Available

Persistence and Degradability	Not Available
Bioaccumulation potential	Not Available
Other Adverse Effects	Not Available

Section 13 – Disposal Considerations

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.

Section 14 – Transport Information

With regard to transport, the following regulations are cited and considered:
- The International Civil Aviation Organization (ICAO) Technical Instructions, Packing instruction 967, section Ⅰ (2021-2022 Edition).
- The International Air transport Association (IATA) Dangerous Goods Regulations, Packing instruction 967, section Ⅰ (63rd Edition, 2022).
- The International Maritime Dangerous Goods (IMDG) Code (Amendment 40-20 Edition).
- The US Hazardous Materials Regulation 49CRF (Code of Federal Regulations).
- The UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria 38.3 Lithium batteries.
- Proper shipping name and UN ID number: LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT, UN No.: UN3481.

Our products are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to all the applicable international and national governmental regulations, and should be transported as Class 9 hazardous material. We further certify that the enclosed products have been tested and fulfilled the requirements and conditions in accordance with UN Recommendations (T1 – T8) on the Transport of Dangerous Goods Model Regulations and the Manual of Tests and Criteria.

Test results of the UN Recommendation on the Transport of Dangerous Goods

Manual of Test and Criteria (38.3 Lithium battery)			
No.	Test items	Test results	Remark
T1	Altitude simulation	Pass	--
T2	Thermal test	Pass	--
T3	Vibration	Pass	--
T4	Shock	Pass	--
T5	External short circuit	Pass	--
T6	Impact	Pass	--
T7	Overcharge	Pass	--
T8	Forced discharge	Pass	--

The following information is provided for domestic and international transportation:

DOT regulations:		
UN Classification (Transport Hazard class):	9	
UN number:	3481	
Packing group:	II	
UN Proper shipping name(technical name):	LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT	

Marine pollutant(Y/N)	N	
Label:	Class 9 (Lithium batteries)	
Land transportation ADR/RID (cross-broder):		
ADR/RID class:	9 Miscellaneous dangerous substances and articles	
Danger code(Kemler):	9	
UN-Number:	3481	
Packaging group:	II	
Marine pollutant(Y/N):	N	
Label:	Class 9 (Lithium batteries)	
Description of goods:	LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT	
Sea transport IMDG:		
Class or division:	Class 9	
UN Number:	3481	
Label:	Class 9 (Lithium batteries)	
Packaging group:	II	
EMS Number:	F-A, S-I	
Marine pollutant(Y/N):	N	
Propper shipping name:	LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT	
Air transport ICAO-TI and IATA-DGR:		
Class or division:	Class 9	
UN Number:	3481	
Label:	Class 9 (Lithium batteries)	
Packaging group:	II	
Marine pollutant(Y/N):	N	
Propper shipping name:	LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT	

Section 15 - Regulatory Information

OSHA hazard communication standard (29 CFR 1910.1200)

_____ Hazardous ____V____ Non-hazardous

Section 16 - Other Information

The information above is believed to be accurate and represents the best information currently available to us. However, NTEK makes no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. Although reasonable precautions have been taken in the preparation of the data contained herein, it is offered solely for your information, consideration and investigation. This material safety data sheet provides guidelines for the safe handling and use of this product; it does not and cannot advise on all possible situations, therefore, your specific use of this product should be evaluated to determine if additional precautions are required.

The data/information contained herein has been reviewed and approved for general release on the basis that this document contains no export controlled information.

********** End of MSDS **********