

Material Safety Data Sheet

Section1:Product and Company Information		
Product Name	Rechargeable Li-ion cell Nominal Voltage: 3.85V, Rated Capacity: 32mAh, 0.123Wh. Model :- GRP150732	
Intended Use	“Smart Ring”	
Date of analysis	05-01-2024 to 09-01-2024	
Company Identification	Shenzhen Grepow Battery Co., Ltd 1ST TO 3RD FLOOR OF COMPLEX BUILDING, 1ST TO 4TH FLOOR OF 2ND BUILDING, 1ST TO 4TH FLOOR OF 1ST BUILDING, TONGFUYU INDUSTRIAL PARK, GAOFENG COMMUNITY, DALANG STREET BAOAN DISTRICT, SHENZHEN, GUANGDONG, CHINA, SHENZHEN, 518118	
Company Contact Details	0086-75527043496	
Emergency Contact detail	-----	
Section 2:Composition/Information on Ingredients		
Product Name	Battery	
Synonyms	Li-ion Cell	
Source	Man Made Product	
Component Name	CAS No.	% Composition Range
Lithium-Hexa-Fluorophosphates	21324-40-3	22, 24 34
Aluminium	7429-90-5	19-21
Graphite	7782-42-5	15-17
Copper	7440-50-8	9-10
Carbon (C) (Graphite)	N/A	N/A
Stainless steel	N/A	N/A

Section 3: Hazards Identification	
Inhalation	
Acute Health Effects	Respiratory (and eye) irritation may occur if fumes are released due to heat or an abundance of leaking batteries.
Chronic Health Effects	Burns and irritation of the respiratory system, coughing, wheezing, and shortness of breath.
Aggravation of Pre-existing Conditions	Not Quantified
Ingestion	
Acute Health Effects	The ingestion of the battery can be harmful. The content of available batteries can cause severe burns to the mouth, esophagus, and gastrointestinal tract.
Chronic Health Effects	The electrolyte solution causes tissue damage to the throat and gastrointestinal tract.
Aggravation of Pre-existing Conditions	Not Quantified
Eye Contact	
Acute Health Effects	When leaking, the electrolyte solution contained in the battery irritates ocular tissues and the skin
Chronic Health Effects	Redness, tearing, burns. The electrolyte is corrosive to all ocular tissues.
Aggravation of Pre-existing Conditions	Not Quantified
Skin Contact	
Acute Health Effects	When leaking, the electrolyte solution contained in the battery irritates ocular tissues and the skin.
Chronic Health Effects	The electrolyte is corrosive and causes skin irritation and burns.
Aggravation of Pre-existing Conditions	Not Quantified
Section 4: First Aid Measures	
After Inhalation	They are not anticipated. If the battery is leaking, remove it to fresh air. If irritation persists, consult a physician.

After Skin Contact	They are not anticipated. If the battery is leaking and the contained material contacts the skin, use with copious amounts of clear water for at least 15 minutes.
After Eye Contact	They are not anticipated. Suppose the battery leaks and the contained material contacts the eyes, use with copious amounts of clear water for atleast 15 minutes. Get medical attention at once.
After Ingestion	They are not anticipated. If the battery leaks and the contained material is ingested; rinse the mouth and surrounding area with clear water. Consult a physician immediately for treatment.
Section 5: Fire Fighting Measures	
Fire	Non-Flammable at standard conditions.
Explosion	The battery may be explosive at high temperatures (above 150°C)
Flash Point	Non-Flammable at standard conditions.
Auto-Ignition	Non-Flammable at standard conditions.
Flammable Limits	Non-Flammable at standard conditions.
Extinguishing Media	Dry chemical-type extinguishers are the most effective means to extinguish a battery fire. A CO ₂ extinguisher will also work effectively
Special Fire Fighting Procedure	Use a positive-pressure self-contained breathing apparatus if batteries are involved in a fire. Full protective clothing is necessary. During water application, caution is advised as burning pieces of flammable particles may be ejected from the fire.
Hazardous Thermal Decomposition Byproducts	Fire, excessive heat, or over-voltage conditions may produce hazardous decomposition products. Damaged batteries can result in rapid heating and the release of flammable vapors.
Fire/Explosion Hazards	The battery may explode or leak potentially hazardous vapors subject to exposure to excessive heat (above the maximum rated temperature as specified by the manufacturer) or fire, over-charged, short-circuit, punctured, and crushed.
Section 6: Accidental Release Measures	
Containment Techniques	If Battery material is released, evacuate personnel from the contaminated area and settle down the fumes and particles.

Spill Response Equipment	The material contained within the battery would only be released under abusive conditions. In case of battery rupture and leakage, collect all the removed materials that are not hot or burning in an appropriate waste disposal container while wearing proper protective clothing and ventilating the area. Placed in an approved container and disposed of according to local regulations.
Personal Protective Equipment	Personal Precautions Avoid contact with eyes. Refer to section 8 for personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas.
Section 7: Handling and Storage	
Handling	1. Batteries are designed to be recharged. However, improperly charging a battery may cause the battery to flame. When charging the battery, use dedicated chargers and follow the specified Conditions. 2. Never disassemble or modify a battery. 3. Do not immerse, throw, and wet a battery in water. 4. Should a battery unintentionally be crushed, thus releasing its contents, rubber gloves must be used to handle all battery components. Avoid the inhalation of any vapors that may be emitted. 5. Short circuit causes heating. In addition, a short circuit reduces the life of the battery and can lead to the ignition of surrounding materials. Physical contact with the short-circuited battery can cause skin burns.
Storage	1. Batteries should be separated from other materials and stored in a noncombustible, well-ventilated, sprinkler-protected structure with sufficient clearance between walls and battery stacks. Do not place batteries near heating equipment, nor expose them to direct sunlight for long periods. 2. Do not store batteries above 35°C or below -20°C. Store batteries in a cool (about 20±5°C) in a long time, dry, and ventilated area that is subject to little temperature change. Elevated temperatures can result in reduced battery cycle life. Battery exposure to temperatures in excess of 60°C will result in the battery venting flammable liquids and gasses.
Section 8: Exposure Controls/Personal Protection	
Engineering Controls	Store and handle in a well ventilated area.
Skin Protection	Rubber or plastic acid resistant gloves with elbow length gauntlet and full body apron.
Eye/Face Protection	Chemical goggles or safety glasses with side shields and a full face shield.

Work Hygiene Practices	Do not wear metallic jewelry when working with batteries. Use nonconductive tools only. Discharge static electricity prior to working on a battery. Maintain an eye wash, fire extinguisher and emergency communication device in the work area.
Section 9: Physical and Chemical Properties	
Appearance	Solid
Colour	Grey
Odor	Odorless
Purity	Not Applicable
pH Value	Not Applicable
Flashpoint	Not Applicable
Melting Point	Not Applicable
Freezing point	Not Applicable
Flammability	Not Applicable
Boiling point	Not Applicable
Density	Not Applicable
Explosion Limits	Not Applicable
Solubility in water	Not Applicable
Vapor Density(Air=1)	Not Applicable
Solubility in organic solvent	Not Applicable
Evaporation Rate	Not Applicable
Viscosity	Not Applicable
Section 10: Stability and Reactivity	
Stability	Stable under ordinary conditions of use and storage.
Hazardous Decomposition Products	The battery may release irritative gas once the electrolyte leaks.
Hazardous Polymerization	Will not occur.

Incompatibilities	None during normal operation. Avoid exposure to heat, open flames, and corrosives.
Conditions to Avoid	Do not heat, throw in to the fire, disassemble, shortcircuit, immerse in water or overcharge, etc.
Section 11: Toxicological Information	
Toxic metals content	
Lead(Pb), ppm	175
Cadmium(Cd), ppm	45
Mercury(Hg), ppm	Not Detected
Arsenic(As), ppm	3.2
Hexavalent Chromium (Cr+6), ppm	Not Detected
Occupationally Relevant Routes of Exposure	
Inhalation	No information is available.
Ingestion	No information is available.
Skin	The internal battery material may cause irritation.
Eye	The internal battery material may cause irritation.
Section 12: Ecological Information	
Environmental Fate	When properly used and disposed of, the battery does not present environmental hazards. The battery does not contain mercury, cadmium, or lead.
Distribution and Persistence in the Environment	No information is available.
Bio accumulation in Aquatic Organisms	No information is available.
Permissible Concentration in Water	Do not let internal components enter the marine environment. Avoid releasing water ways, waste water, or ground water.
Section 13: Disposal Considerations	
Physical/Chemical Properties	Solid, durable, and electricity storage device in Li-ion.

Recommended Disposal Method	Disposal of the battery should be performed as permitted, by professional disposal firms knowledgeable in Federal, State, or Local requirements of hazardous waste treatment and hazardous waste transportation. The battery should be completely discharged prior to disposal and/or the terminals taped or capped to prevent short circuits. When completely discharged it is not considered hazardous.
Empty Containers	The battery contains recyclable materials. Recycling options available in your local area should be considered when disposing of this product, through a licensed waste carrier.
Section 14: Transportation Information	
RID/ADR	Lithium batteries are dangerous goods and, as such, require special packaging for transportation. All domestic and international shipments containing lithium batteries are subject to transport regulations on hazardous goods according to ADR RID, ADN, IMDG, and ICAO / IATA Regulations.
IMDG	According to PACKING INSTRUCTION 965 of IATA DGR 63rd Edition for transportation, the special provision 188 of IMDG (inc Amdt 38-16). The batteries should be securely packed and protected against short circuits. Examine whether the package of the containers is integrated and tightened closed before transport. Take in a cargo of them without falling, dropping, or breaking. 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 avoid exposure, rain, and high temperatures. For stopovers, the vehicle should be away from fire and heat sources. When transported by sea, the assembly place should keep away from the bedroom and kitchen, and isolated from the engine room, power, and fire source. Under the conditions of Road Transportation, the driver should drive in accordance with the regulated route, don't stop over in a residential area or congested area. (a) UN number=3480 (b) UN Proper shipping name LITHIUM-IRON BATTERIES(including lithium-ion polymer batteries) (c) Transport hazard class(es)= 9 (d) Packing Instruction(if applicable)=965II/IB (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.

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Section15:Regulatory Information	

WHMIS	D2A Very toxic material causing other toxic effects Carcinogen D2B Toxic material causing other toxic effects Moderate skin irritant Skin sensitizer Moderate respiratory irritant Moderate eye irritant INTERNATIONAL CHEMICAL INVENTORIES: This product is considered an article under the chemical inventories listed below and consequently is exempt from listing on these inventories: 1. U.S.EPA Toxic Substance Control Act (TSCA) 2. Canadian DSL Inventory 3. Canadian Chemical Registration Regulations (NDSL/DSL) 4. European Inventory of Existing Chemical Substances (EINECS/ELINCS) 5. Singapore Code of Practice on Pollution Control Requirements 6. Australian Inventory of Chemical Substances (AICS) 7. Japanese Existing and New Chemical Substance List (ENCS) 8. Korean Existing Chemicals List (ECL) 9. Chinese Inventory of Existing Chemicals List (IECSC) However, based on the rules enforced with regard to the marketing and use of chemicals to manufacture this product, each chemical component of this finished product has been listed or exempt from the listed chemical inventories.
Section 16: Labeling Information	
Product Name	Battery assy. Traction
Signal Word	Danger
Hazard Description	These lithium-ion rechargeable batteries are sealed units and are not harmful under conditions of normal use as recommended by the manufacturer. The information in this section relates to unusual conditions resulting from abuse in which the battery electrodes and electrolytes are exposed.
Precautions	Do not short batteries or install with incorrect polarity. Keep in original packaging until use. Batteries may explode or cause burns if disassembled, crushed, or exposed to fire or high temperatures. Wash hands after handling. Keep away from food and drink.
First Aid Procedures	Use carbon dioxide, dry chemical powder, or an appropriate foam.
Fire Instructions	Non-Flammable at normal operations and normal storage.
Spill or Leak Procedures	Sweep up using a method that does not generate dust. Collect as much of the spilled material as possible, and place the spilled material into a suitable disposal container.
Handling and Storage Instructions	Store in a cool, dry, well-ventilated place. Keep away from heat, sparks, flames, and moisture. Avoid extended exposure to sunlight.

Section 17: Other Information

HMIS Ratings	Health Hazard: 2 Chronic Hazards: 0 Flammability: 2 Physical Hazards: 0
NFPA Ratings	Skin irritation (Category 2), Skin sensitization (Category 1), Eye irritation (Category 2), Single target organ toxicity, single exposure (Category 3), Carcinogen (Category 1B)
Date	09-01-2024
Disclaimer	The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product regarding appropriate safety precautions. It does not represent any guarantee of the properties of the product.



Issued By
Santram Rajput
 Technical Manager