



MATERIAL SAFETY DATA SHEET

Report No.:	GTC240708M002		<i>Page 1 of 6</i>	
Client:	Lei Di An UAV Technology Co.,Ltd 1st Floor, Building 2, Post Cross-border E-commerce Park, , Dongshen 2nd Road,YanTian,FengGang Town,DongGuang			
Manufacture	Lei Di An UAV Technology Co.,Ltd 1st Floor, Building 2, Post Cross-border E-commerce Park, , Dongshen 2nd Road,YanTian,FengGang Town,DongGuang			
Test item:	Lithium polymer batteries			
Type/Mode:	1S 3.8V battery, 2S 7.4V battery , 3S 11.1V Battery , 4S 14.8V			
Trade mark:	N/A			
Receipt	GTC240708M002	<i>Date of receipt:</i>	July .08, 2024	
Report Weiter:	Geometry Test certification (Shenzhen) Co., Ltd 1st floor, building 6, xinhaosheng Industrial Park,Yonghe Road, Fuhai street, Bao'an District, Shenzhen,China,518103			
	<i>tested by:</i>		<i>reviewed by:</i>	
	<i>Yoki Li</i>		<i>Antoy Yu</i>	
Julyr.08, 2024	Yoki Li/ Project Engineer	July. 08, 2024	Antoy Yu/ Reviewer	
Date	Name/Position Signature	Date	Name/Position Signature	
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1. Chemical Product and Company Identification

Name of goods :	Lithium polymer batteries
Type/Mode :	1S 3.8V battery, 2S 7.4V battery , 3S 11.1V Battery , 4S 14.8V
Applicant :	Lei Di An UAV Technology Co.,Ltd
Factory :	Lei Di An UAV Technology Co.,Ltd
Contact person :	chris zhou
Emergency Telephone Number:	+86 15359999233
E-mail :	chris@haodiok.com

2. Composition/Information on Ingredients

Chemical Composition	CAS Number	Concentration(%)
Lithium Cobalt Oxide	12190-79-3	15-40
Graphite	7782-42-5	10-30
Phosphate(1-), hexafluoro-, lithium	21324-40-3	10-30
Copper	7440-50-8	7-13
Aluminum foil	7429-90-5	5-10
Nickel	7440-02-0	1-5

3. Hazards Identification

<i>Classification of Danger</i>	See section 14.
<i>Primary Route(s) of Exposure</i>	No danger.
<i>Health Hazard</i>	The batteries are not hazardous when used according to the instructions of manufacturer under normal conditions. In case of abuse, there's Hazard of rupture, fire, heat, leakage of internal components, which could cause casualty loss. Abuses including but not limited to the following cases: charged for long time, short circuited, put into fire, whacked with hard object, punctured with acute object, crushed, and broken.

4. First aid measures

<i>Eye</i>	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
<i>Skin</i>	Remove contaminated clothes and rinse skin with plenty of water or shower for 15 minutes. Get medical aid.
<i>Inhalation</i>	Remove from exposure and move to fresh air immediately. Use oxygen if available.
<i>Ingestion</i>	Ingesting damaged batteries, do not induce vomiting or give food or drink. Seek medical attention immediately.

5. Fire-fighting measures

<i>Characteristics of Hazard</i>	Dusts at sufficient concentrations can form explosive mixtures with air. Combustion generates toxic fumes.
<i>Hazardous Combustion Products</i>	Carbon dioxide.
<i>Fire-extinguishing Methods and</i>	For small fires, use water spray, dry chemical, carbon dioxide or chemical



<i>Extinguishing Media</i>	foam.
<i>Attention in Fire-extinguishing</i>	Wear self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental Release Measures	
<i>Personal Precautions, protective equipment, and emergency procedures</i>	In case of rupture. Attention! Corrosive material. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Refer to protective measures listed in Sections 7 and 8.
<i>Environmental Precautions</i>	Prevent product from contaminating soil and from entering sewers or waterways.
<i>Methods and materials for Containment</i>	Stop the leak if safe to do so. Contain the spilled liquid with dry sand or earth. Clean up spills immediately.
<i>Methods and materials for cleaning up</i>	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.

7. Handling and Storage	
<i>Handling</i>	The battery may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity.
<i>Storage</i>	Store in a cool, dry, well-ventilated area away from incompatible substances. Store locked up. Keep out of the reach of children.
<i>Other Precautions</i>	In case of rupture. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Use personal protection equipment.

8. Exposure Controls/Personal Protection	
<i>Engineering control</i>	Use adequate ventilation to keep airborne concentrations low. If used under conditions that generate particulates, the ACGIH TLV-TWA of 3mg/m ³ respirable fraction (10mg/m ³ total) should be observed.
<i>Personal Protective Equipment</i>	Eye and Face Protection: None required for consumer use. If there is a Hazard of contact: Tight sealing safety goggles. Face protection shield. Skin and Body Protection: None required for consumer use. If there is a Hazard of contact: Wear protective gloves and protective clothing. Respiratory Protection: No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

9. Physical and Chemical Properties	
Physical State	Appearance: Prismatic
	Odour: If leaking, smells of medical ether.
pH, with indication of the concentration	Not applicable



Melting point/freezing point	Not applicable
Boiling Point, initial boiling point and Boiling range:	Not applicable
Flash Point	Not applicable
Upper/lower flammability or explosive limits	Not available.
Vapor Pressure:	Not applicable
Vapor Density: (Air = 1)	Not applicable
Density/relative density	Not applicable
Solubility in Water	Not applicable
Molecular Weight	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	Not applicable
Odour threshold	Not available.
Evaporation rate	Not available.
Flammability (soil, gas)	Not applicable
Viscosity	Not applicable

10. Stability and Reactivity	
<i>Chemical Stability</i>	Stable under recommended storage conditions.
<i>Possibility of Hazardous Reactions</i>	None under normal processing.
<i>Conditions to Avoid</i>	Exposure to air or moisture over prolonged periods.
<i>Incompatible materials</i>	Acids, Oxidizing agents, Bases.
<i>Hazardous Decomposition Products</i>	Carbon oxides.

11. Toxicological information	
<i>Irritation</i>	Toxicological studies have shown that acute toxicity of similar substances is very low.
<i>Sensitization</i>	no data available.
<i>Reproductive Toxicity</i>	no data available.
<i>Toxicologically Synergistic Materials</i>	no data available.

12. Ecological information	
<i>General note:</i>	Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
<i>Anticipated behavior of a chemical product in environment/possible</i>	Not Available.



<i>environmental impact/ ecotoxicity</i>	
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13. Disposal consideration	
<i>Waste Treatment</i>	Recycle or dispose of in accordance with government, state & local regulations.
<i>Attention for Waste Treatment</i>	Deserted batteries shouldn't be treated as ordinary trash. Shouldn't be thrown into fire or placed in high temperature. Shouldn't be dissected, pierced, crushed or treated similarly. Best disposal method is recycling.

14 . Transport Information	
<i>UN number</i>	3480 & 3481
<i>Proper shipping name</i>	Lithium ion batteries (limited to a maximum of 30% SoC) or; Lithium ion batteries packed with equipment (including lithium ion polymer batteries) or; Lithium ion batteries contained in equipments (including lithium ion polymer batteries).
<i>Label(s) / Placard Required</i>	Miscellaneous Lithium batt
<i>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</i>	
<i>ICAO / IATA:</i>	Can be shipped by air in accordance with International Civil Aviation Organization (ICAO), TI or International Air Transport Association (IATA), DGR Packing Instructions (PI) 965 Section IB, PI 966 Section II and PI 967 Section II appropriate of IATA DGR 64 th (2023 Edition) for transportation.
<i>IMDG CODE:</i>	The batteries are not restricted to IMDG Code 2020 Edition (Amdt 40-20) according to special provision 188.
<i>DOT:</i>	Other requirements for the US Department of Transportation (DOT) Subchapter C, Hazardous Materials Regulations if shipped in compliance with 49 CFR 173.185.
<i>ADR/ ADN:</i>	The batteries are not subject to the provisions of United Nations Economic Commission for Europe (UNECE) ADR/ADN if they meet the requirements of special provision 188 of Chapter 3.3. Applicable as from 1 January 2023.
In addition, to be permitted in transport each lithium cell and battery types must have passed the applicable tests set out in Subsection 38.3 of the UN Manual of Tests and Criteria.	

15. Regulation information
<p>Dangerous Goods Regulations</p> <p>Recommendations on the Transport of Dangerous Goods-Model Regulations (22nd revised edition)</p> <p>Recommendations on the Transport of Dangerous Goods-Manual of Tests and Criteria International Air Transport Association (IATA)</p> <p>International Maritime Dangerous Goods (IMDG Code 2020 Edition Amdt 40-20)</p> <p>Technical Instructions for the Safe Transport of Dangerous Goods Classification and code of dangerous goods (GB 6944-2012)</p> <p>2012 OSHA Hazard Communication Standard (29 CFR 1910.1200) Toxic Substance Control Act (TSCA)</p>



Code of Federal Regulations

In accordance with all Federal, State and local laws

16. Other information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. 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 Report*******