# **MSDS**

Report No.: BST190111385702LBR

# MATERIAL SAFETY DATA SHEET

Sample Description & Model	Rechargeable Li-Polymer Battery S700
Applicant	BOXCHIP CO.,LTD
Address	Floor 3nd, building 13, Da Yuan Industrial Park, Pingshan 1 Road, Nanshan District, Shenzhen, China.
Issue Date	2019.01.15
Written by:	Approved by:

Material Safety Data Sheet				
Section 1-Chemical Product and Company Identification				
Product Name	Rechargeable Li-Polymer Battery			
Model	S700			
Ratings	3.8V, 4500mAh,17.1Wh			
Weight	108g			
Manufacturer	JIAJINYUAN TECHNOLOGY CO.LTD			
Manufacturer address	F2.F3,4 Building, Hengye Industrial Park, heping community Fuyong Baoan shenzhen			
Emergency Telephone	/			
Fax	1			
Section 2- Composition Information				
Chemical Composition	Chemical Formula		CAS No.	Weight (%)
Lithium cobaltate	LiCoO <sub>2</sub>		12190-79-3	15 - 40
Graphite	C <sub>24</sub> X <sub>12</sub>		7782-42-5	10 - 30
Phosphate(1-), hexafluoro-, lithium	LiPF <sub>6</sub>		21324-40-3	10 - 30
Copper	Cu		7440-50-8	7-13
Aluminium	Al		7429-90-5	5-10
Nickel	Ni		7440-02-0	1-5
Section 3- Hazards Identification				
Emergency overview:		N/A		
Classification according	to GHS	Not a dangerous s	ubstance according to GHS	
Label elements:				
Hazard pictogram(s)	d pictogram(s) No available			
Signal word	No available			
Hazard statement(s)	statement(s) No available			
Precautionary statement(s):				
Prevention	No available			

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Response	No available	
Disposal	No available	
Environmental hazards:	No relevant information	
Important symptoms:	See section 11 for more information	
Section 4- First Aid Measures		
Eye contact	Flush eyes with plenty of water for least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.	
Skin contact	Remove contaminated clothes and rinse skin with plenty of water or shower for 15 minutes. Get medical aid.	
Inhalation	Remove from exposure and move to fresh air immediately. Use oxygen if available.	
Ingestion	Give at least 2 glasses of milk or water. Induce vomiting unless patient is unconscious. Call a physician.	
Section 5- Fire Fighting Measures		
Flash Point	N/A	
Auto-Ignition Temperature	N/A	
Extinguishing Media	Water, CO <sub>2</sub>	
Special Fire-Fighting Procedures	Self-contained breathing apparatus	
Unusual Fire and Explosion Hazards	Cell may vent when subjected to excessive heat-exposing battery contents	
Hazardous Combustion Products	Carbon monoxide, carbon dioxide, lithium oxide fumes.	
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## **Section 6- Accidental Release Measures**

### Personal precautions, protective equipment and emergency procedures:

If the battery 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 and allow the vapors to dissipate. Avoid skin and eyes contact or inhalation of vapors. Remove spilled liquid with absorbent and incinerated. If leakage of the battery happens, liquid could be absorbed wit sand, earth or other inert substance and contaminated area should be ventilated meantime.

### **Environment precautions:**

Do not allow product to reach sewage system or any water source.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

# Methods and material 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.

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Section 7- Handling and Storage		
Handling	The battery should not be opened, destroyed or incinerate, since they may leak or rupture and release to the environment the ingredients that they contain in the hermetically sealed container.  Do not short circuit terminals, or over charge the battery, forced over-discharge, throw to fire.  Do not crush or puncture the battery, or immerse in liquids.	
Storage	Avoid mechanical or electrical abuse. Storage preferably in cool, dry and ventilated area, which is subject to little temperature change. Storage at high temperatures should be avoided.  Do not place the battery near heating equipment, nor expose to direct sunlight for long periods.	
Other Precautions	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.	
Section 8- Exposure Controls/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 suitable protective clothing and gloves if handling an open or leaking battery.  Hand protection: Wear suitable 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	
Form	Cuboid type	
Color	Gray	
Odour	No available	
рН	No available	
Melting point/freezing point	No available	
Boiling Point and Boiling range	No available	
Flash Point	No available	

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Upper/lower flammability or explosive limits	No available	
Vapor Pressure	No available	
Vapor Density	No available	
Relative density	No available	
Solubility in Water	No available	
Auto-ignition temperature	No available	
Decomposition temperature	No available	
Evaporation rate	No available	
Flammability (soil, gas)	No available	
Viscosity	No available	
Other information	3.8V, 4500mAh,17.1Wh	
Section 10- Stability and reactivity		
Stability	The product is stable under conditions described Section 7	
Conditions to Avoid	Heat above 70°C or incinerate. Deform, Mutilate, Crush, Disassemble, Overcharge, Short circuit, Expose over a long period to humid conditions.	
Incompatible Materials	Oxidizing agents, acid, base.	
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide, lithium oxide fumes.	
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	

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Section 12- Ecological Information		
Ecological Toxicity	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.	
Uncleaned packaging recommendation	Disposal must be made according to official regulations	
Section 14 – Transport Information		
Label for conveyance	Vehicle emergency starting power supply	
UN Number	UN 3481	
Transport hazard class(es)	9	
Packing group		
Marine pollutant	No	
UN Proper shipping name	Vehicle emergency starting power supply	

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### **Transport information:**

The goods shall be complied with the requirements of Section IB of Packing Instruction 967 of 60<sup>th</sup> DGR Manual of IATA or special provision 188 of IMDG CODE (Amdt. 38-16), including the passing of the UN38.3 test.

Separate Lithium-ion batteries when shipping to prevent short-circuiting. They should be packed in strong packaging for support during transport, ensure that the goods will not falling, dropping, and breakage, Prevent collapse of cargo piles and wet by rain.

**Transport Fashion**: By air, by sea, by railway, by road.

# **Section 15- Regulatory information**

#### Law information

《Dangerous Goods Regulations》

《Recommendation on the Transport of Dangerous Goods Model Regulations》

《International Maritime Dangerous Goods》

《Technical Instructions for the Safe Transport of Dangerous Goods》

《Classification and code of dangerous Goods》

《Occupational Safety and Health Act》(OSHA)

《Toxic Substance Control Act》(TSCA)

《Consumer Product Safety Act》(CPSA)

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《Federal Environmental Pollution Control Act》(FEPCA)

《The Oil Pollution Act》(OPA)

《Superfund Amendments and Reauthorization Act Title III (302/311/312/313)》(SARA)

《Resource Conservation and Recovery Act》(RCRA)

《Safety Drinking Water Act》(CWA)

《California Proposition 65》

《Code of Federal Regulations》(CFR)

In according with all Federal, State and local laws.

# **Section 16- Other Information**

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The information above is believed to be accurate and represents the best information currently available to us. However, concorde 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.

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