Material Safety Data Sheet

For

Shenzhen Optlaser Technologies Co., Ltd

5rd floor, Building A, Libang Industrial Park, Xitian Village, Gongming Town, Guangming New District, Shenzhen, China.

and for their product

Mobile phone battery

Model/type reference : BL-6Q

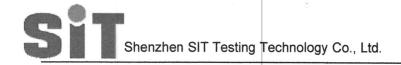
Trade Mark : N/A

Version number : V1.0

Preparation Date : January 16, 2016

Revision date : N/A

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Section 1- Chemical Product and Company Identification

1. Chemical Product Identification

Product name: mobile phone battery

Test Model: BL-6Q Voltag: 3.7V Capacity: 970mAh

Equivalent lithium content: 3.55Wh

2. Company Identification

Manufacturer / Supplier Name: Shenzhen Optlaser Technologies Co., Ltd.

Address: 5rd floor, Building A, Libang Industrial Park, Xitian Village, Gongming Town,

Guangming New District, Shenzhen, China.

Telephone number of the supplier: 0755-88856700 Emergency Telephone No.(24h): 0755-88856700 Fax: 0755-88856733

E-mail address: luncy.shu@yfagroup.com

This MSDS was prepared by Shenzhen SIT Testing Technology Co., Ltd.

Item Number: SIT160116257SF

Referenced documents: ISO 11014:2009 Safety data sheet for chemical products;

Section 2 - Hazards Identification

Preparation	Not dangerous with normal use. Do not dismantle, open or shred Battery the
hazards and	ingredients contained within or their ingredients products could be
classification	harmful.
Apperance,	Solid object with no odor, no color.
Color, and	
Odor Primary	These chemicals are contained in a sealed stainless steel enclosure. Risk of
Route(s) of	
Exposure	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	ACUTE (short term): see Section 8 for exposure controls In the event that this
Health Effects:	battery has been ruptured, the electrolyte solution contained within the battery
Lileots.	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	Not applicable	
Conditions		
Aggravated by		
Exposure	ž.	
Reported as	Not applicable	
carcinogen		

Section 3 - Composition/Information on Ingredients

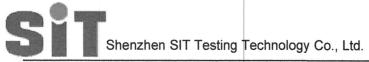
Lithium ion battery is a mixture.

Hazardous Ingredients (Chemical Name)	Concentration or concentration ranges (%)	CAS Number
Lithium Cobait Oxide (CoLiO ₂)	15-25	12190-79-3
Copper	15-25	7440-50-8
Graphite	10-20	7782-42-5
Ethylene carbonate	10-30	96-49-1
Phosphate(1-), hexafluoro-, lithium	10-20	21324-40-3
Aluminum foil	5-15	7429-90-5

Note: CAS number is Chemical Abstract Service Registry Number. N/A=Not apply.

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	kin 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	In the event that this battery has been ruptured, the electrolyte solution contain					
Properties	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	Use extinguishing media suitable for the materials that are burning.					
Media						
Unsuitable						
extinguishing	Not available					
Media						
Explosion	Sensitivity to Mechanical Impact: This may result in rupture in extreme cases					
Data	Sensitivity to Static Discharge: Not Applicable					
Specific	Fires involving Battery an be controlled with water. When water is used, however,					
Hazards	hydrogen gas may evolve. In a confined space, hydrogen gas can form an					
arising from	explosive mixture. In this situation, smothering agents are					
the chemical	recommended to extinguish the fire					
Protective						
Equipment	As for any fire, evacuate the area and fight the fire from a safe distance. Wear a					
and	pressure-demand, self-contained breathing apparatus and full protective gear.					
precautions	Fight fire from a protected location or a safe distance. Use NIOSH/MSHA approved					
for firefighters	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 equi	pment, and	Restrict access to area until completion of
emergency procedures		clean-up. Do not touch the spilled material. Wear
· I		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 Containme	ent	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 u	ρ .	Absorb spilled material with an inert absorbent
10		(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	Do not dismantle, open or shred secondary Battery; Don't handling 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 Battery is subject to storage for such a long term as more than 3 months, it is recommended to recharge the Battery periodically.
	3 months: -10℃~+40℃, 45 to 85%RH And recommended at 0℃~+35℃ 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.
	The voltage for a long time storage shall be 3.6V~4.2V range.
	Do not storage Battery haphazardly in a box or drawer where they may



9	- 5,	
		short-circuit each other or be short-circuited
		by other metal objects.
		Keep out of reach of children.
i		Do not expose Battery to heat or fire.
:	4	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
	į	normal conditions.
		Skin and body Protection: Not necessary
	*	under normal conditions, Wear neoprene or
		nitrile rubber gloves if handling an open or
	1	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: Black		· ·	
	Odour: Monotony			
Change in o	condition:			
pH, with ind	lication of the concentration	on	Not applicable	
Melting poir	nt/freezing point		Not available.	
Boiling Point, initial boiling point and Boiling range:		Boiling	Not available.	

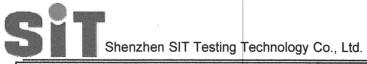
Shenzhen SIT Testing Technol	Material Safety Data Sheet Report No.: SIT160116257SF blogy Co., Ltd.
Flash Point	Not available.
Upper/lower flammability or explosive limits	Not available.
Vapor Pressure:	Not applicable
Vapor Density: (Air = 1)	Not applicable
Density/relative density	Not available.
Solubility 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 or vibration)	arge, shock	Do not subject Battery to mechanical shock. Vibration encoutered 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	Í	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	i .	,	Not Available
Neurological Effects			Not Available



Teratoaenicitv	Not Available	
Reproductive Toxicity	Not Available	
Mutagenicity (Genetic Effects)	Not Available	
Toxicologically Synergistic Materials	Not Available	

Section 12 - Ecological Information

		
General note:	97	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 pr	oduct in	Not Available
environment/possible environmental		
impace/ecotoxicity		,
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.

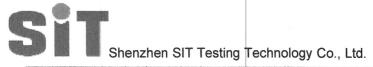
The potential effects on the environment and human health of the substances used in batteries and accumulators; the desirability of not disposing of waste batteries and accumulators as unsorted municipal waste and of participating in their separate collection so as to facilitate treatment and recycling;

Section 14 - Transport Information

This report applies to by sea, by air and by land;

The Battery tested according to the requirements of the UN manual of tests and Criteria, Part III, subsection 38.3;

Battery was protected so as to prevent short circuits. This includes protection against contact with conductive materials within the same packaging that could lead to short circuit;



The Battery according to Section II/Section IB of PACKING INSTRUCTION 965, or Section II of PACKING INSTRUCTION 965 \sim 967 of the 2016 IATA Dangerous Goods regulations 57 $^{
m th}$ Edition may be transported, and applicable U.S. DOT regulations for the safe transport of Battery.

More information concerning shipping, testing, marking and packaging can be obtained from label master at http://www.labelmaster.com/.

The packaging shall be adequate to avoid mechanical damage during transport, handling and stacking. The materials and pack design shall be chosen so as to prevent the development of unintentional electrical conduction, corrosion of the terminals and ingress of moisture.

The package must be handled with care and that a flammability hazard exists if the package is damaged;

With regard to transport, the following regulations are cited and considered:

- The International Civil Aviation Organization (ICAO) Technical Instructions.
- The International Air transport Association (IATA) Dangerous Goods Regulations. UN number of lithium battery: UN3480 or UN3481;

UN Proper shipping name/Description (technical name): Lithium ion batteries or Lithium ion batteries contained in equipment or Lithium ion batteries packed with equipment;

UN Classification (Transport hazard class): dangerous; Marine pollutant(Y/N): N;

- The International Maritime Dangerous Goods (IMDG) Code.

For lithium-ion batteries by sea, provided that packaging is strong and prevent the products from short-circuit.

UN number of lithium battery: UN3480 or UN3481;

UN Proper shipping name/Description (technical name): Lithium ion batteries or Lithium ion batteries contained in equipment or Lithium ion batteries packed with equipment;

UN Classification (Transport hazard class): Non

dangerous; Marine pollutant(Y/N): Y;

Special Provision: International maritime dangerous goods code (IMDG) 188, 230, 310, 348, 957;

- The US Hazardous Materials Regulation (HMR) pursuant to a final rule issued by RSPA
- The Office of Hazardous Materials Safety within the US Department of Transportations' (DOT) Research and Special Programs Administration (RSPA)

Section 15 - Regulatory Information

OSHA hazard communication stan	dard (29 CFR 1910.1200)	
Hazardous	vNon-hazardou	S

Section 16 - Other Information

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.

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***