Version: V1.2

SDS

SAFETY DATA SHEET

According to 2012 OSHA Hazard Communication Standard

(29 CFR 1910.1200)

Prepared For : Sentry Industries Limited

507 Houston Center, 63 Mody Road, Tst, Hong Kong, China

Prepared By

: Shenzhen LCS Compliance Testing Laboratory Ltd.

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Issue Date

: 2019.04.11

Report Number : LCS190227017ASD001

Written by: Seven liu Approved by:

According to 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

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* The SDS is prepared based on the information provided by client. The contents and formats of this SDS are revised as per client's request.

	Section 1- Identifi	cation				
(a) Product identifier						
Product name	Lithium-ion Battery					
(b) Other means of ident	tification					
Product description	Model: JYZ501013 Nominal Voltage: 3.7V Nominal capacity: 40mAh Watt-hour: 0.148Wh Weight: 0.9g					
(c) Recommended use of	of the chemical and restrictions on use					
Recommended use	LITHIUM ION BATTERIES					
Uses advised against	No information available.					
(d) Details of the supplie	er of the safety data sheet					
Supplier Name	Sentry Industries Limited					
Supplier Address	507 Houston Center, 63 Mody Road, Tst, Hong Kong, China					
Manufacture Company	Sentry Industries Limited					
Manufacture Address	507 Houston Center, 63 Mody Road, Tst, Hong Kong, China					
Supplier Phone Number	852-23684777					
(e) Emergency telephon	e number					
852-23684777						
	Section 2- Hazards Ide	entification				
1910.1200). This produc	t is an article which is a sealed battery a	Hazard Communication Standard (29 CFR and as such does not require an MSDS per the transfer indicated are for a ruptured battery.				
Skin corrosion/irritation		Category 2				
Serious eye damage/eye	irritation	Category 1				
Carcinogenicity		Category 2				
Specific target organ toxic	eity (repeated exposure)	Category 1				
(b) GHS Label elements	including precautionary statements					
Emergency Overview						

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Signal word

Danger

Hazard Statements

Causes damage to organs through prolonged or repeated exposure Causes skin irritation

Causes serious eye damage Suspected of causing cancer





Physical State: Solid Odor: No information available No information available Annearance.

Appearance: No information available	Physical State: Solid	Odor: No information available			
Precautionary Statements-Prevention	Do not breathe dust/fume/gas/mist/vapors/spray Wash face, hands and any exposed skin thoroughly after handling Wear protective gloves/protective clothing/eye protection/face protection Use only outdoors or in a well-ventilated area Do not eat, drink or smoke when using this product				
Precautionary Statements-Response	Immediately call a POISON CENTER Specific treatment (see supplementa Get medical advice/attention if you fe	I first aid instructions on this label)			
Eyes	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician				
Skin	IF ON SKIN: Wash with plenty of soal of skin irritation occurs: Get medical at Take off contaminated clothing and w	dvice/attention			
Precautionary Statements-Storage	Store locked up Store in a well-ventilated place. Keep	container tightly closed			
Precautionary Statements-Disposal	Dispose of contents/container to ar	approved waste disposal plant			

(c) Hazards not otherwise classified (HNOC)

Not applicable

(d) Unknown Toxicity

32% of the mixture consists of ingredient(s) of unknown toxicity

(e) Other information

Very toxic to aquatic life with long lasting effects

(f) Interactions with Other Chemicals

No information available.

Section 3- Composition/Information On Ingredients

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Chemical Name	CAS Number	Weight (%)	Trade Secret
Lithium Cobalt Oxide (CoLiO ₂)	12190-79-3	38.8	*
Copper	7440-50-8	6.5	*
Graphite	7782-42-5	37.9	*
Phosphate(1-), hexafluoro-, lithium	21324-40-3	4.6	*
Aluminum foil	7429-90-5	12.2	*

[&]quot; * " The exact percentage (concentration) of composition has been withheld as a trade secret.

Section 4- First-aid Measures

Description of first aid measures

- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Immediately rinse with water.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing: If symptoms persist consult doctor.
- Most important symptoms and effects, both acute and delayed No further relevant information available.
- Indication of any immediate medical attention and special treatment needed

No further relevant information available.

Section 5- Fire-fighting measures

(a) Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

(b) Unsuitable extinguishing media

CAUTION: Use of water spray when fighting fire may be inefficient.

(c) Specific Hazards Arising from the Chemical

The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors.

(d) Hazardous Combustion Products

Carbon oxides.

(e) Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Section 6- Accidental Release Measures

(a) 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 with sand, earth or other inert substance and contaminated area should be ventilated meantime.

(b) 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.

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(c) 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.

Section 7- Handling and Storage

(a) Precautions for safe handling Handling

Handle in accordance with good industrial hygiene and safety practice. Wear personal protective equipment. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

(b) Conditions for safe storage, including any incompatibilities Storage

Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children.

Incompatible Products

Strong acids. Strong oxidizing agents. Strong bases

Section 8- Exposure Controls/Personal Protection

(a) Control parameters

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Carbon black 1333-86-4	TWA: 3 mg/m ³ inhalable fraction	TWA: 3.5 mg/m ³ (vacated) TWA: 3.5 mg/m ³	IDLH: 1750 mg/m ³ TWA: 3.5 mg/m ³ TWA: 0.1 mg/m ³ Carbon black in presence of Polycyclic aromatic hydrocarbons PAH
Lithium Cobalt Oxide (CoLiO ₂) 12190-79-3	TWA: 0.02 mg/m³	-	-
Phosphate(1-), hexafluoro-, lithium 21324-40-3	TWA:2.5mg/m³ F	TWA:2.5mg/m³ F TWA:2.5mg/m³ dust (vacated)TWA:2.5mg/m³	
Copper 7440-50-8	TWA:0.2mg/m³ fume TWA:1mg/m³Cu dust and mist	TWA:0.1mg/m³fume TWA:1mg/m³dust and mist (vacated) TWA:0.1mg/m³Cu dust,fume,mist	IDLH:100mg/m³dust ,fume and mist TWA:1mg/m³dust and mist TWA:0.1mg/m³ fume
Aluminum foil 7429-90-5	TWA:1mg/m³ respirable fraction	TWA:15mg/m³ total dust TWA:5mg/m³respirable fraction (vacated) TWA:15mg/m³total dust (vacated) TWA:5mg/m³ respirable fraction(vacated) TWA:5mg/m³ AL Aluminum	TWA:10mg/m³ total dust TWA:5mg/m³ respirable dust

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		nental Industrial Hygienists - Threshold Limit Value dministration - Permissible Exposure Limits Immediately Dangerous to Life or Health						
Other Exposure Guidelines	Vacated lim	Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992) See section 15 for national exposure control parameters						
(b) Appropriate engine	eering contr	rols						
Engineering Measures	Showers Eyewash st Ventilation							
(c) Individual protection	on measures	s, such as personal protective equipment						
Eye/Face Protection	None requir	red for consumer use. If there is a risk of contact:. Tight sealing safety goggles. ction shield.						
Skin and body Protection	None requir	red for consumer use. If there is a risk of contact:. Wear protective gloves and lothing.						
Respiratory Protection		ve equipment is needed under normal use conditions. If exposure limits are or irritation is experienced, ventilation and evacuation may be required.						
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. For environmental protection, remove and wash all contaminated protective equipment before re-use. No information available.							
S	ection 9-	Physical and Chemical Properties						
Form		Solid						
Color		Yellow						
Odor		No available						
рН		No available						
Melting point/freezing p	point	No available						
Boiling Point and Boiling	ng range	No available						
Flash Point		No available						
Upper/lower flammabili explosive limits	ity or	No available						
Vapor Pressure		No available						
Vapor Density		No available						

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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
Sect	ion 10- Stability and reactivity
Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of Hazardous Reactions	None under normal processing.
Hazardous Polymerization	Hazardous polymerization does not occur.
Conditions to avoid	Exposure to air or moisture over prolonged periods. Excessive heat.
Incompatible materials	Acids. Bases. Oxidizing agent.
Hazardous Decomposition Products	Carbon oxides.
Section	n 11 – Toxicological Information
Product Information	Product does not present an acute toxicity hazard based on known or supplied information. In case of rupture:
Irritation	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.
Eye contact	Specific test data for the substance or mixture is not available. Causes burns. (based on components). Corrosive to the eyes and may cause severe damage including blindness. Causes serious eye damage. May cause irreversible damage to eyes.
Skin contact	Specific test data for the substance or mixture is not available. Corrosive. (based on components). Causes burns.
Ingestion	Specific test data for the substance or mixture is not available. Causes burns. (based on components). Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. May be fatal if swallowed and enters airways.
Component Information	

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Chemical Name		Oral LD50		Derm	nal LD50	Inhalation LC50		
Carbon black 1333-86-4		> 10000 mg/kg (Rat	;)	> 3 g/kg	g(Rabbit)	-		
Information on toxicological	al effects	5						
Symptoms		Erythema (skin Itching. Rashes			ause redness	and tearing of the eyes.		
Delayed and immediate eff	ects as v	well as chronic e	ffects f	rom short a	and long-term	exposure		
Sensitization:	May cause sens	sitizatio	n of suscept	ible persons. I	May cause sensitization by			
Mutagenic Effects:		No information a	availabl	e.				
Carcinogenicity:		The table below a carcinogen.	indicat	es whether	each agency h	nas listed any ingredient as		
Chemical Name		ACGIH	IA	ARC	NTP	OSHA		
Lithium Cobalt Oxide (CoLiO ₂) 12190-79-3		A3	Gro	up 2B		X		
Carbon black 1333-86-4		A3	Gro	up 2B		X		
X - Present Reproductive Toxicity	icaiui AUN	No information a						
Group 2B - Possibly Carcinogenic to OSHA (Occupational Safety and I Y - Present		ninistration of the US	Departn	nent of Labor)				
STOT - single exposure		No information a	ilion available.					
		No information available.						
STOT - repeated exposure		on classification Standard (29 CF	criteria R 1910	from the 20 0.1200), this	012 OSHA Haz product has b	repeated exposure. Based card Communication seen determined to cause eated exposure. (STOT		
Chronic Toxicity						d repeated exposure. May cause adverse liver		
Target Organ Effects						ract (GI). Central Vascular ar system. Systemic		
Aspiration Hazard		No information available.						
Numerical measures of tox	icity Pro	duct Information	1					
The following values are ca		l based on	ATEr	nix (oral):		12,905.00 mg/kg		
onapter 3.1 of the GH3 doc	ument		ATE	mix (derma	il):	10,200.00 mg/kg (ATE)		
	Sect	ion 12- Eco	logic	al Infor	mation			

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Ecological To	xicity	Very toxic to aqua	atic life with	n long lasting effects.			
Chemical name	Toxicity to Algae	Toxicity to F	ish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)		
Copper 7440-50-8	96h EC50: 0.031 - 0.054 mg/L (Pseudokirchneriella subcapitata) 72h EC50: 0.0426 - 0.0535 mg/L (Pseudokirchneriella subcapitata)	96h LC50: 0.0 0.0156 mg/L (Pimeph promelas 96h LC50: = 0.1 (Poecilia reticula LC50: = 0.3 r (Cyprinus carpio) 96h LC5 mg/L (Cyprinus 96h LC50: = 1.25 (Lepomis macrochirus) 96h 0.052 mg/ (Oncorhyncl mykiss) 96h LC5 mg/L (Pimeph promelas 96h LC50: < 0.3 (Pimephales pro	nales) 12 mg/L ata) 96h mg/L s 0: = 0.8 carpio) mg/L s LC50: = 'L hus 50: = 0.2 nales) 3 mg/L	-	48h EC50: = 0.03 mg/L 24h EC50: > 5600 mg/L		
1333-86-4					2411 E030. > 3000 Hig/E		
	nd Degradability	No information available.					
Bioaccumula		No information available.					
Other adverse	effects	No information available.					
	Section	n 13- Dispo	sal Co	nsiderations			
Waste treatme	ent methods						
Disposal methods		This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.					
Contaminated	Packaging	Disposal should be in accordance with applicable regional, national and local laws and regulations.					
	ardous Waste Codes ontains one or more sub	141		ne State of California a	as a hazardous waste.		
	Chemical Name			California Hazardous Waste			
Lit	hium Cobalt Oxide (Co 12190-79-3	LiO ₂)		Toxio			
	Copper 7440-50-8		Toxic				

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Aluminum foil 7429-90-5			Ignitable powder			
	Se	ection 14 – Trai	nsport Information			
UN Number -DOT, IMDG, IATA		UN 3480 & UN 3481				
UN Proper shipping n -DOT, IMDG, IATA	hatteries) or:					
Transport information	1	Lithium-ion Battery (Sample Model: JYZ501013) is tested and has passed accordance with UN manual of Tests and Criteria, Part III, subsection 38.3. The transportation of lithium cells and batteries is regulated by the International Air Transport Association (According to Section II/ Section IB of PACKING INSTRUCTION 965, or to Section II of PACKING INSTRUCTION 966~967 of IATA INTERPORT OF GR 60th Edition for transportation), International Civil Aviation Organization, International Maritime Dangerous Goods Code and the US Department of Transportion listed in 49 CFR 173.185. Lithium batteries shipped as "Lithium batteries", "Lithium batteries packed with equipment",or "Lithium batteries contained in equipment" may not be classified as "Dangerous Goods" when shipped in accordance with "special provision A4 of IATA-DGR" or "special provision 188 of IMO-IMDG Code"				
Transport hazard clas	s(es)	9				
Environmental hazard	ls	Yes(DOT)				
Marine pollutant		Symbol (fish and tree)				
Special precautions for EMS Number	or user	Warning: Miscellaneous dangerous substances and articles F-A,S-N				
Transport in bulk acce to Annex II of MARPO and the IBC Code		Not applicable				
DOT Remarks:		Special marking with the symbol (fish and tree)				
IMDG Limited quantities (LG Excepted quantities (I		0 Code: E0 Not permitted as Excepted Quantity				
	Se	ection 15- Regu	latory information			
(a) International Inve	ntories					
TSCA	Complie	s.				
DSL	All comp	onents are listed either	on the DSL or NDSL.			
(b) US Federal Regul	ations					
SARA 313	Section (SARA).	This product contains a	perfund Amendments and Reauthorization Act of 1986 a chemical or chemicals which are subject to the reporting at 40 of the Code of Federal Regulations, Part 372.			

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Chemical Name		C 1	S No			,	Neight-%		SARA	313 – Threshold	
Lithium Cobalt Oxid	de					-				Values %	
(CoLiO ₂)			90-79-			15-40				0.1	
Copper			0-50-8				3-7			1.0	
Aluminum foil		742	9-90-5	5			7-13			1.0	
SARA 311/312 Haz		ries									
Acute Health Hazar			No	No							
Chronic Health Haz	ard		No								
Fire Hazard			No								
Sudden release of	pressure haz	zard	No								
Reactive Hazard			No								
CWA (Clean	Water Act)			itants p				ubstances wl ter Act (40 CF		e regulated 21 and 40 CFR	
Chemical Name		CWA - Reportable Quantities			WA - To: Pollutant	-		A - Priority ollutants	С	WA - Hazardous Substances	
Copper 7440-50-8		;						Х			
CERCLA			haz	This material, as supplied, contains one or more substances regulated a hazardous substance under the Comprehensive Environmental Respondence and Liability Act (CERCLA) (40 CFR 302)					mental Response		
Chemical Na	ame	e Hazardo			ardous Substances Extremely F RQs Substance					RQ	
Copper 7440-50-8			5000 lb				-	5000 lb final RQ 2270 kg final RQ			
(c) US State Regu									IVQ.	ZZ70 kg iiriai ikQ	
California Proposi	tion 65				This pro	oduct co	ontains th	e following P	ropositi	on 65 chemicals.	
Ch	nemical nam	е					Calif	ornia Proposi	tion 65		
Carbon	black - 133	3-86-4						Carcinogen			
U.S. State Right-to	-Know Reg	ulation	s								
Chemical Name	New Je	ersey	Massachusetts			Pennsy	lvania	Rhode Isl	and	Illinois	
Carbon black 1333-86-4	Х			Х		Х				Х	
Lithium Cobalt Oxi (CoLiO ₂) 12190-79-3	X					Х		Х		Х	
Dimethyl carbona 616-38-6	te x			Χ		Х					
Aluminum 7429-90-5	Х			Х		Х		Х			
Copper 7440-50-8	Х			Х		Х		Х		Х	
Ethylene carbona 96-49-1	te			Х		Х					
(d) International F	Regulations	5									
Mexico											
National occupation	onal exposu	re limi	ts								
•	-			Car	cinogen	Status		E	xposur	e Limits	
Component Carbon black					J						

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	Aluminum 7429-90-5 (7 - 13)		Mexico: TWA= 10 mg/m ³						
	Copper 7440-50-8 (3 - 7)		Mexico: TWA= 1 mg/m ³ Mexico: TWA= 0.2 mg/m ³ Mexico: STEL= 2 mg/m ³						
Mexico - Occupational Exposure Limits - Carcinogens									
Canada									
WHMIS	Hazard Class		Not determined	t					
	Section 16- Additional Information								
NFPA	Health Hazards	1	Flammability	0	Instability	0	Physical and Chemical Hazards	-	
HMIS	Health Hazards	2*	Flammability	0	Physical Hazard	0	Personal Protection	Х	

Chronic Hazard Star Legend * = Chronic Health Hazard

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

******End of Safety Data Sheet*****