# MSDS Report

Sample Description	Lithium-ion Battery SL390912
&Model	
Applicant	Dongguan Sunly Battery Technology CoLtd.
Address	Building 30 <sup>th</sup> Arising Sun Industrial AreaN0.8 Xinyang RoadLin VillageTangxia TownDongguan Cit Guangdong 523000 CHINA

鉴定日期/Inspection Date	2021-12-1-2021-12-29
签发日期/Issue Date:	2022-1-1 1 1 1 1 1 1
报告有效期/Period of Validity	2022-12-31

### Material Safety Data Sheet

Section 1- Chemical Product and Company Identification Chemical product identification Sample Oescription: Lithium-ion Battery Sample Model: SL390912 Recommended Uses: N/A Restrictions on use: N/A Supplier name: Dongguan Sunly Battery Technology Co. Ltd. Address: Building 30thArising Sun Industrial AreaNO.8 Xinyang Road Lin VillageTangxia TownDongguan CityGuangdong 523000 CHINA Phone number: 0769-82063046 FAX: 0769-87285586 E-mail: RO-tangdm@sunlvbatterV.com Emergency phone number: 0769-82063046

#### Section2-Hazards Identification

Emergency overview: This product is an article which contains a chemical substance. Safety information is given for exposure to the article as sold. Intended use of the product should not result in exposure to the chemical substance. This is a battery charger. In case of rupture: the below hazards exist.

CAS# 7429-90-5

Classification according to GHS Substances and mixtures which in contact with water emit flammable gases (23) Specific target organ toxicit repeated exposure (1) (Lung) Hazardous to the aquatic environment} long-term hazard (4)

Label elements

Hazard pictogram(s): Signal word: Oanger Hazard statement(s): H2611n contact with water releases flammable gas H372 Causes damage to organs through prolonged or repeated exposure (Lung) H413 May cause long lasting harmful effects to aquatic life Precautionary statement(s)

Prevention:

P223Do not allow contact with water.

P231+P232Handle and store contents under inert gas Protect from moisture.

P280 Wear protective gloves protective clothinge protection and

face protection.

P260 Do not breathe dust.P264 Wash skin and clothing thoroughly after handling.P270 Do not eatdrink or smoke when using this product.P273 Avoid release to the environment.

#### Response

P302+P335+P334 IF ON SKIN: Brush off loose particles from skin and immerse in cool water.

P370+P378 In case of fire: Use the appropriate media put out the fire. P314 Get medical advice if you feel unwell.

Storage

P402+P404 Store in a dry place. Store in a closed container.

Disposal:

P501Contents handling to approved waste treatment plants.

CAS#7440-50-8

Classification according to GHS

Sensitisationskin (11A1B)

Specific target organ toxicitysingle exposure (1) (digestive system) Specific target organ toxicitysingle exposure; Respiratory tract irritation (3)

Label elements

Hazard pictogram(s)

Signa1 word: Danger

Hazard statement(s)

H317 May cause an allergic skin reaction H370 Cause damage to organs (digestive system) H335 May cause respiratory irritation

Precautionary statemet(s)

Prevention:

P260 Do not breathe dustfume.

P272 Contaminated work clothing should not be allow out of the workplace.

P280 Wear protective gloveseye protectionface protection.

P264 Wash skin and clothing thoroughly after handling.

P270 Do not eatdrink or smoke when using this product.

P271Use only outdoors or in a well-ventilated area.

Response:

P302+P352 IF ON SKIN: Wash with plenty water. P333+P313 If skin irritation or rash occurs: Get medical advice. P321Specific treatment (See additional emergency instructions). P362+P364 Take off contaminated clothing and wash it before reuse. P308+P3111F exposed or concerned: Call a POISON CENTER. P304+P340 IFINHALED: Remove person to fresh air and keep comfortable for breathing. P312 Call a POISON CENTER if you feel unwell.

Storage

P403+P233 in a well-ventilated place. Keep container tightly closed. P405 Store locked up.

Disposal

P501Contents handling to approved waste treatment plants.

Other hazards

Physical and chemical hazards: See Section 10

Human health hazards: See Section 11

Environmental hazards: See Section 12

## Section 3-CompositionjInformation on Ingredients

Chemical characterization: Mixture

Chemical Composition	CAS No.	EC#	Weight (%)
Cobaltatelithium	12190-79-3	235-362-0	41.6
Graphite	7782-42-5	231-955-3	22.1
Aluminum	7429-90-5	231-072-3	4.8
Copper	7440-50-8	231-159-6	10.6
Electrg_lyte			17.8

Diaphragm				0.8
Aluminum	Nylon-6	25038-54-4		
Plastic Film	Aluminum	7429-90-5	231-072-3	1.0
	Polypropylen	9003-07-0	618-352-4	
Others				1.3

Section 4-First Aid Measure

Description of first aid measures

General information No special measure required.

After eye contact

Flush eyes with plenty of water for several minutes while holding eyelids open. Get medical attention if irritation persists.

After skin contact

Remove contaminated clothing and shoes. Immediately wash with water and soap and rinse thoroughly. Wash clothing and shoes before reuse. If irritation occursget medical attention.

After inhalation

Remove victim to fresh area. Administer artificial response if breathing is difficult. Seek medical attention.

After swallowing

Do not induce vomiting. Get medical attention.

Personal protective equipment for first-aid responders: No date available. Most important symptomsjeffectsacute and delayed: No date available. Indication of immediate medical attention and special treatment needed: No date available.

Section 5-Fire Fighting Measures

Suitable extinguishing media:

Use extinguishing agent suitable for local conditions and the surrounding environment. Such as dry powde  $CO_2$ 

Unsuitable extinguishing media: No data available.

Specific Hazards arising from the chemical:

Special hazards arising from the substance or mixture

Battery may burst and release hazardous decomposition products when exposed to a fire situation. Lithium ion batteries contain flammable electrolyte that may ventignite and produce sparks when subjected to

high temperature(>150  $^{\circ}$ C (302  $^{\circ}$ F ))when damaged or abused(e.g. mechanical damage or electrical overcharging); may burn rapidly with flare-burning effect; may ignite other batteries in clothes proximity.

Specific protective actions for fire-fighters:

Protective equipment: Wear self-contained respirato Wear fully protective impervious suit. Section 6-Accidental Release Measures

Personal precautions:

Wear protective equipment. keep unprotected persons away. Ensure ad3equate ventilation

Protective equipment:

No date available.

Emergency procedures:

Remove ignition sourcesevacuate area. Sweep up using a method that does not generate dust.Collect as much of the spilled material into a

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suitable disposal container. Keep spilled material out of sewersditches and bodies of water.

Environment precautions:

00 not allow material to be release to the environment without proper governmental permits.

Methods and materials for containment and cleaning up:

All waste must refer to the United Nationsthe national and local regulations for disposal.

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

#### Section 7-Handling and Storage

Precautions for safe handling; Consumption of food and beverage should be avoided in work areas. Wash hands with soap and water before eatingdrinking. Ground containers when transferring liquid to prevent static accumulation and discharge.

Information about fire and explosion protection Battery may explode or cause burns if disassembled crushed or exposed to fire or high temperatures. 00 not short or instawith incorrect polarity.

Conditions for safe storageincluding any incompatibilities: Requirements to be met by storerooms and receptacles Store in a cooldrywell-ventilated place.

Information about storage in one common storage facility kee'p away from heatavoiding the long time of sunlight.

Further information about storage conditions keep container tightly sealed. Specific and use No data available.

Section 8-Exposure Controls/Personal Protection Controloaramet

CAS No.	ACGIH	NIOSH	OSHA
12190-79-	N/A	N/A	N/A
7429-90-5	TLY-TWA 1mg/m <sup>3</sup>	REL-T IA 2mg/m <sup>3</sup>	PEL-TWA 5mg/m <sup>3</sup>
		REL-TWA 5mg/m <sup>3</sup>	PEL-TWA 15mg/m <sup>3</sup>
		REL-TWA 10mg/m <sup>3</sup>	
7782-42-5	TLY-TWA 2mg/m <sup>3</sup>	REL-TWA 2.5mg/m <sup>3</sup>	PEL-TWA 15mppcf

			PEL-TWA 20mppcf
7440-50-8	TLY-TWA	REL-TWA Img/m <sup>3</sup>	PEL-TWA 0.Img/m <sup>3</sup>
	<b>1</b> .2mg/m <sup>3</sup>	REL-TWA 0.Img/m <sup>3</sup>	PEL-TWA Img/m <sup>3</sup>
7440-02-0	TLY-TWA	REL-TWA	PEL-TWA Img/m <sup>3</sup>
25038-54-4	N/A	N/A	N/A
9003-07-	N/A	N/A	N/A

Appropriate engineering measures for handling chemicals should be follow.

I<eep away from foodstuffsbeverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

#### Personal Protective Equipment

Respiratory protection: Wear suitable protective mask in order to reduce the respiratory system. A large number of leakagewear chemical protective clothingincluding self-contained breathing apparatus.

Hand Protection: Wear appropriate protective gloves to reduce skin contact.

Eyes Protection: Wear safety goggles or eye protection combined with respiratory protection.

Skin and Body Protection: Working environment requiredwear suitable protective clothing to minimize contact with skin. The type of protective equipment must be according to the concentration and the content of certain hazardous substances in the workplace.

Section 9-Physical and Chemical Properties Information on basic physical and chemical properties Colour:

	Silver
PhysicalState:	Prismatic
Odour:	Not available
Odour threshold:	Not available
pH:	Not available
Melting pointjfreezing point:	Not available
Initial boiling point and boiling range:	Not available
Flash Point:	Not available
Evaporation rate:	Not available
Flammability (solidgas):	Not available
Explosion Limits (vol% in air):	Not available
Vapour pressurekPa	
at20°C : Not available	
Vapor density:	Not available
DensityjRelative density(water=I):	Not available
Solubility(ies):	Not available
Partition coefficient: n-octanoljwater:	Not available
Auto-ignition temperature:	Not available

Decomposition temperature:	Not available
Viscosity:	Not available
Other information:	
Voltage	3.7V
Electric capacity	20mAh
Electric Energy	0.074Wh

#### Section 10-Stability and Reactivity

Reactivity: No data available.

Chemical stability: Stable.

Possibility of hazardous reactions: No data available.

Conditions to Avoid: Flames sparks and other sources of ignition incompatible materials.

Incompatibilities materials: Oxidizing agentsacidbase.

Hazardous decomposition products: Carbon monoxidecarbondioxide lithium oxide fumes.

#### Section II-Toxicological information

Acute To

CAS No.	LC50jLD50
12190-79-3	No data available.
7782-42-5	No data available.
7729-90-5	No data available.
7440-50-8	No data available.
25038-54-4	No data available.
9003-07-0	No data available.

Skin corrosionjirritation: No data available. Serious

eye damagejirritation: No data available.

Respiratory or Skin sensitization: No data available.

Germ Cell mutagenicity: No data available.

Carcinogenicity: No data available.

Reproductive toxicity: No data available.

Specific target organ toxicity-Single exposure: No data available.

Aspiration hazard: No data available.

Information on the likely routes of exposure: No data available.

Eye: No data available.

Skin: No data available.

Ingestion: No data available.

Inhalation: No data available.

#### Section 12-Ecological Information

Ecological Toxicity: No data available. Persistence and degradability: No data available. Bioaccumulative Potential: No data available. Mobility in Soil: No data available. Other adverse effects: No data available.

Section 13-Disposal Considerations

Disposal methods:

Recommendation:

Consult statelocal or national regulations to ensure proper disposal.

Uncleaned packaging

Recommendation: Disposal must be made according to official regulations.

Section 14-Transport Information			
UN Number			
IATA		UN3481	
IMDG		UN3481	
UN Proper shipping	name		
IATA	Lithium ion bat	eries contained in equipment	
IMDG	LITHIUM ION BATIER'	Y CONTAINED IN EQUIPMENT	
Transport hazard clas	ss(es}		
IATA		9	
IMDG		9	
Packing group			
IATA			
		N/	
Packing Sign			
IATA			
		N/	
Environmental hazar	ds		
Marine pollutant		No	
Special precautions for	or user	Not applicable	

Transport information: The Lithium-Ion Battery SL390912 has passed the test Un38.3

According to the Packing Instruction PI 966II and PI 967II of IATA DGR 63th Edition for transportation.

According to the special provision 188 of IMDG CODE(Amdt40-20). The products are not subject to dangerous goods.

Note: Batteries weight in the package<5kg (By airBatteries installed in equipment).

Transport Fashion: By airby sea.

Section 15-Regulatory Information

Safetyhealth and environmental regulations/legislation specific for the substance or mixture

CAS No. I TSCA IIECSC I DSL/NDSL | EINECS/ELINCS/NLP |

12190-79-3	Listed	Listed	Listed DSL	Listed
7782-42-5	Listed	Listed	Listed DSL	Listed
7429-90-5	Listed	Listed	Listed DSL	Listed
7440-50-8	Listed	Listed	Listed DSL	Listed
25038-54-4	Listed	Listed	Listed DSL	Listed
9003-07-0	Listed	Listed	Listed DSL	Listed

#### Section 16-0ther Information

Issue Department: Technical department

Modification record:

Notice to reader

To the best of out knowledgethe information contained herein is accurate. Howevemeither 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 materials is the sole responsibility of the user. All material may present unknown hazards and should be used with caution. Although certain hazards are described hereinwe cannot guarantee that these are the only hazards that exist.

Other information:

CAS:(Chemical Abstracts Service);

EC:(European Commission);

ACGIH:(American Conference of GovernmentalIndustrial Hygienists);

NIOSH:(US NationalInstitute for Occupational Safety and Health);

OSHA:(US Occupational Safety and Health);

TLV:(Threshold Limit Value);

TWA:(Time Weighted Average);

STEL:(Short Term Exposure Limit);

PEL:(Permissible Exposure Level);

REL: (Recommended Exposure Limit};

PC-STEL:(Permissible concentration-time weighted average);

PC-TWA:(Permissible concentration-short time Exposure limit);

LC50:(Lethal concentration50 percent kill);

LD50:(Lethal dose50 percent kill);

IARC: (International Agency for Research on Cancer);

EC50:(Median effective concentration);

BCF:(Bioconcentration Factor};

BOD:(Biochemical oxygen demand);

NOEC:(No observed effect concentration);

NTP:(US National Toxicology Program);

RTECS:(Registry of Toxic Effects of Chemical Substances);

IATA:(International Maritime Dangerous Goods);

TDG:(Recommendations on the TRANSPORT OF DANGEROUS GOODS Model Regulations);

TOC:(Total Organic Carbon);

TSCA:(Toxic Substances List of Canada); DSL:(the Domestic Substances List of Canada); NDSL:(the Non-domestic Substances List of Canada);

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\*\*\*End of report\*\*