

MSDS Report

Sample Description
& Model

Lithium-ion Polymer Battery SDL-702035HP-350mAh

Applicant

Alstar Technology Co.,Ltd

Address

Flat 905, Sunny Bldg., No. 26, Hongshan Road, Zhuhai , China

No.: I07093107716D
Code: if7catv30i

Report in electronic version is only for client's preview and reference. For confirmative content, formal test report shall prevail.

Material Safety Data Sheet

According to ISO11014:2009 & GB16483-2008

Section 1 - Chemical Product and Company Identification

Chemical product identification

Sample Description: Lithium-ion Polymer Battery

Sample Model: SDL-702035HP-350mAh

Sample Photo:



Authenticate the photo on original report only

Company identification

Manufacturer: Alstar Technology Co.,Ltd

Address: Flat 905, Sunny Bldg., No. 26, Hongshan Rd., Zhuhai, Guangdong, P.R.China

Tel: +86-756-2655842

Fax: +86-756-2655842

Post code: 519085

Further Information obtainable from

Emergency telephone: 0757-86688555

E-mail: alstar@alstar-tech.com

Section 2 - Hazards Identification

Label elements**Labelling according to Regulation (EC) No 1272/2008[CLP]****Hazard pictogram(s):** No available**Signal word:** No available**Hazard statement(s):** No available**Precautionary statement(s):****Prevention:** No available**Response:** No available**Disposal:** No available**Other hazards** No information available.**Section 3 - Composition, Information on Ingredients****Chemical characterization: Mixture**

Chemical Composition	CAS No.	EC#	Weight (%)
Lithium Cobalt Oxide	12190-79-3	235-362-0	30~50
Graphite	7782-42-5	231-955-3	15~25
Aluminum foil	7429-90-5	231-072-3	3~10
Copper foil	7440-50-8	231-159-6	5~12
PVDF Polyvinylidene Fluoride	24937-79-9	200-867-7	<8
Electrolyte	---	---	10~20
Aluminum	7429-90-5	231-072-3	<10

Section 4 - First Aid Measures**Description of first aid measures****General information** No special measures 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 occurs, get medical attention.

After inhalation

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

After swallowing

Do not induce vomiting. Get medical attention.

Information for doctor:

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

Section 5 - Fire Fighting Measures

Flammability: Not available.

Extinguishing media

Suitable extinguishing agents

Use extinguishing agent suitable for local conditions and the surrounding environment .
Such as dry powder , CO₂.

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 vent, ignite and produce sparks when subjected to high temperature(>150°C(302°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.

Advice for firefighters

Protective equipment: Wear self-contained respirator. Wear fully protective impervious suit.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation

Environmental precautions

Do not allow material to be released to the environment without proper governmental permits.

Steps to be taken in case material is spilled or released

Remove ignition sources, evacuate area. Sweep up using a method that does not generate dust. Collect as much of the spilled material as possible, placed the spilled material into a suitable disposal container. Keep spilled material out of sewers, ditches and bodies of water.

Waste disposal method

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

Reference to other sections

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

Handling

Precautions for safe handling

Consumption of food and beverage should be avoided in work areas.

Wash hands with soap and water before eating, drinking.

Ground containers when transferring liquid to prevent static accumulation and discharge.

Information about fire and explosion protection

Batteries may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity.

Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles

Store in a cool, dry, well-ventilated place.

Information about storage in one common storage facility

Keep away from heat, avoiding the long time of sunlight.

Further information about storage conditions

Keep container tightly sealed.

Specific and use

No further relevant information available.

Section 8 - Exposure Controls, Personal Protection

Control parameters

Ingredients with limit values that require monitoring at the workplace:	
12190-79-3 Lithium Cobalt Oxide	
TLV (USA)	0.02mg/m ³ .
MAK(Germany)	0.1mg/m ³ .

Exposure controls**Personal protective equipment****General protective and hygienic measures**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

Respiratory Protection

Use suitable respirator when high concentrations are present.

Personal Protection**Protection of hands**

Protective gloves

Eye protection

Tightly sealed goggles

Section 9 - Physical and Chemical Properties

Information on basic physical and chemical properties**General information**

Appearance:

Yellow and Silver.

Form:

Prismatic.

Odour:

Odorless.

pH:

Not available.

Change in condition**Melting point:** Not available.**Boiling point:** Not available.**Freezing point** Not available.**Flash point:** Not available.**Flammability:** Not available.**Ignition temperature:** Not available.**Decomposition temperature:** Not available.**Self-igniting:** Not available.**Danger of explosion:** Not available.**Explosion limits****Lower:** Not available.**Upper:** Not available.**Oxidizing properties:** Not available.**Vapour pressure:** Not available.**Density:** Not available.**Relative density:** Not available.**Vapour density:** Not available.**Evaporation rate:** Not available.**Solubility in/Miscibility with water:** Not available.**n-octanol/water partition coefficient:** Not available.**Viscosity** Not available.**Dynamic:** Not available.**Kinematic:** Not available.**Other information:****Voltage** 3.7V**Electric capacity** 350mAh**Section 10 - Stability and Reactivity****Reactivity:** Data not available.**Chemical stability:** Stable.**Possibility of hazardous reactions:** Data not available.**Conditions to Avoid**

Flames, sparks, and other sources of ignition, incompatible materials.

Incompatibilities

Oxidizing agents, acid, base.

Hazardous Combustible Products

Carbon monoxide, carbon dioxide, lithium oxide fumes.

Hazardous Polymerization

N/A.

Section 11 - Toxicological Information**Information on toxicological effects****Acute toxicity****LD/LC50 Values relevant for classification:**

Not available.

Primary irritant effect

No further relevant information available.

Sensitization:

No further relevant information available.

Additional toxicological information:**Toxicological, metabolism and distribution:**

No further relevant information available.

Acute effects (acute toxicity, irritation and corrosivity):

No further relevant information available.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):

No further relevant information available.

Section 12 - Ecological Information**Toxicity**

Aquatic toxicity: No further relevant information available.

Persistence and degradability: No further relevant information available.

Behaviour in environmental systems

Bioaccumulative potential: No further relevant information available.

Mobility in soil: No further relevant information available.

Ecological effects**Additional ecological information**

General notes:

Do not allow material to be released to the environment without proper governmental permits.

Other adverse effects: No further relevant information available.

Section 13 - Disposal Considerations

Waste treatment methods**Recommendation:**

Consult state, local 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, IMDG, Model Regulation	None
UN Proper shipping name	
IATA, IMDG, Model Regulation	None
Transport hazard class(es)	
IATA, IMDG, Model Regulation	None
Packing group	
IATA, IMDG, Model Regulation	None
Environmental hazards	
Marine pollutant:	No
Special precautions for user	Not applicable.

Transport information: The Lithium-ion Polymer Battery SDL-702035HP-350mAh has passed the test UN38.3, according to the report ID: I04043009821C~1.

According to the Packing Instruction 967 section II of IATA DGR 55th Edition for transportation.

According to the special provision 188 of IMDG (36-12) or the <<Recommendations On The Transport Of Dangerous Goods-Model Regulations>> (18th). The products are not subject to dangerous goods.

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

Separate Lithium-ion batteries when shipping to prevent short-circuiting. They should be packed in strong packaging for support during transport. Take in a cargo of them without falling, dropping, and breakage. Prevent collapse of cargo piles and wet by rain.

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

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

Section 15 - Regulatory Information

This Material Safety Data Sheet complies with the requirements of Regulation (EC) No. 1907/2006.

Safety, health and environmental regulations/legislation specific for the substance or mixture

Chemical Composition	CAS No.	TSCA	EC#	EINECS
Lithium Cobalt Oxide	12190-79-3	Listed	235-362-0	Listed
Graphite	7782-42-5	Listed	231-955-3	Listed
Aluminum foil	7429-90-5	Listed	231-072-3	Listed
Copper foil	7440-50-8	Listed	231-159-6	Listed
PVDF Polyvinylidene Fluoride	24937-79-9	Listed	200-867-7	Listed
Aluminum	7429-90-5	Listed	Listed	Listed

Section 16 - Additional Information

Abbreviations and acronyms

CLP: EU regulation (EC) No 1272/2008 on classification, labelling and packaging of chemical substances and mixtures.

CAS:	Chemical Abstracts Service (Division of the American Chemical Society).
ACGIH:	American Conference of Governmental Industrial Hygienists
TLV:	Threshold Limit Value
IATA:	International Air Transport Association
IMDG:	International Maritime Dangerous Goods
LC50:	lethal concentration, 50 percent kill
LD50:	lethal dose, 50 percent kill
TWA	Time Weighted Average
TSCA	United States Toxic Substances Control Act Section 8(b) Inventory
EINECS	European Inventory of Existing Commercial Chemical Substances
Model	Recommendations on the Transport of Dangerous Goods Model
Regulation	Regulations

Declare to reader

The above information is based on the data of which we are aware and is believed to be correct as of the data hereof. Since this information may be applied under conditions beyond our control and with which may be unfamiliar and since data made available subsequent to the data hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

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MSDS Creation Date: July 15, 2014

End of report