MSDS · Report

Sample Name	Li-ion Battery （ DBAE-1150A）
Applica	Shenzhen Aerospace Electronic Co., Ltd.
Addre	2/ F，4/ F&5/ F,No.42 Langkou Industrial Zone, Langkou Community, Dalang Sub-district, Longhua District, Shenzhen City, Guangdong Province, China.

SHENZHEN AEROSPACE ELECTRONIC CO., LTD.
4405110245046

Material Safety Data Sheet

According to IS011014:2009 & GB16483-2008

Section 1 - Chemical Product and Company Identification

Chemical product identification

Product Name: Li-ion Battery

Battery Type: DBAE-1150A

Company identification

Manufacturer: Shenzhen Aerospace Electronic Co., Ltd.

Address:2/ F， 4/ F&5/ F,No.42 Langkou Industrial Zone,Langkou Community, Dalang Sub-district, Longhua District, Shenzhen City, Guangdong Province, China.

Tel: 0755-61115505

Fax: 0755-61115502

Post code: 518109

Further Information obtainable from

Emergency telephone: 0755-61115505

E-mail: apsc@gzapsc.com*

Section 2 - Hazards Identification

No harm at the normal use. If contact the electrolyte in the battery, reference as follows:

Classification of the substance or mixture

Classification according to GHS

Acute toxicity, Oral (Category 4)

Acute toxicity, Dermal (Category 3)

Skin, irritate (Category 1B)

Eyes, irritate (Category 1)

Label elements

Labelling according to Regulation (EC) No 1272/2008[CLP]

Hazard pictogram(s):



Signal word: Danger

Hazard statement(s): H311: Toxic in contact with skin.
H314: Causes severe skin burns and eye damage
H302: Harmful if swallowed.

Precautionary statement(s):

Prevention: P280: Wear protective gloves/protective clothing/eye protection / face protection.

Response: P312: Call a POISON CENTER or doctor/ physician if you feel unwell.
P302 + P350 - IF ON SKIN: Gently wash with plenty of soap and water
P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Disposal P501: Dispose of contents/container in accordance with local/national regulations

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	**24-28**
Aluminum Foil	7429-90-5	231-072-3	5
Copper Foil	7440-50-8	231-159-6	5
Graphite	7782-42-5	231-955-3	14-17
Lithium Hexafluorophoshate	21324-40-3	244-334-7	1.0
Organic Solvents	---	---	6.5
Others	---	---	37.5-43.5

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.

Section5-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 , CO_2.

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(302T)), 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.

Section6-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)	0.1 mg/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:	Black.
Form:	Quadrate.
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	1150mAh 4.255Wh

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 (carcinogenity, 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	UN3480 or UN3481
Proper shipping name	Lithium ion batteries (including lithium ion polymer batteries) or Lithium ion batteries packed with equipment (including lithium ion polymer batteries) or Lithium ion batteries contained in equipment (including lithium ion polymer batteries)
Class or division	9
Marine pollutant (Yes/No)	No
Packing group	N/A
Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises	
ICAO / IATA:	Can be shipped by air in accordance with International Civil Aviation Organization (ICAO), TI or International Air Transport Association (IATA), DGR Packing Instructions (PI) 965 Section IB, or (PI) 966 Section II, or (PI) 967 Section II appropriate of IATA DGR 65th (2024 Edition) for transportation.
IMDG CODE:	The batteries are not restricted to IMDG Code 2022 Edition (Amdt41-22) according to special provision 188.

In addition, to be permitted in transport each lithium cell and battery types must have passed the applicable tests set out in Subsection 38.3 of the UN Manual of Tests and Criteria.

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

Composition	CAS#	TSCA	EC#	EINECS
Lithium Cobalt Oxide	12190-79-3	Listed	235-362-0	Listed
Aluminum Foil	7429-90-5	Listed	231-072-3	Listed
Copper Foil	7440-50-8	Listed	231-159-6	Listed

Graphite	7782-42-5	Listed	231-955-3	Listed
Lithium Hexafluorophoshate	21324-40-3	Listed	244-334-7	Listed

Section 16 –Additional Information

Abbeviations and 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
LATA: 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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