



Material Safety Data Sheet

LITHIUM-ION BATTERY
MSDS No.:AJT160328810E

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Lithium-Ion Battery
Product Code: S-8132A, S-8132S, S-8152A, S-8152S, S-8172A, S-8172S, S-8192A, S-8192S, S-8080A, S-8080S, S-8082A, S-8082S, S-8BG6, S-8823, S-8056N, S-8073N
Product Use: To power the video camera

Supplier Information

Company Name: SWIT Electronics Co., Ltd.
Address: 10 Heng Tong Road, Xin'gang Nanjing Economic and Technological Development Zone
Nanjing 210038, P.R.China
Tel: 86-25-85582170
Fax: 86-25-85582171
Email: zh@softorange.cn
Emergency Telephone: 86-25-85582170

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION: Not available

(This product is outside the scope of GHS system since it's considered as an "article".)

For the battery cell, chemical materials are stored in a hermetically sealed metal or metal laminated plastic case, designed to withstand temperatures and pressures encountered during normal use. As a result, during normal use, there is no physical danger of ignition or explosion and chemical danger of hazardous materials' leakage.

EMERGENCY OVERVIEW:

May explode in a fire, which could release hydrogen fluoride gas.

Use extinguishing media suitable for materials burning in fire.

PRIMARY ROUTES OF ENTRY

Skin contact, Skin absorption, Eye contact, Inhalation, and Ingestion: NO

POTENTIAL HEALTH EFFECTS:

The materials contained in this battery may only represent a hazard if the integrity of the battery is compromised or if the battery is physically or electrically abused.

ACUTE EXPOSURE: Electrolyte may irritate skin and eyes.

3. COMPOSITION/INFORMATION ON INGREDIENTS

IMPORTANT NOTE:



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The battery pack should not be opened or burned since the following ingredients contained within the cells that could be harmful under some circumstance if exposed or misused.

Substance/Preparation: Preparation

Ingredients Name	Content/%	CAS No.	EC No.	RISK Phrases & Classification
Nickel compound	0-25	1313-99-1	215-215-7	T R43;R49;R53
Manganese compound	0-15	1313-13-9	215-202-6	Xn R20/22
Cobalt compound	4-50	1307-96-6	215-154-6	Xn;N R22;R43;R50/53
Styrene-Butadiene-Rubber	<1	27288-99-9	-	-
Polyvinylidene Fluoride(PVDF)	<5	24937-79-9	-	-
Aluminum Foil	2-10	7429-90-5	231-072-3	-
Copper Foil	2-10	7440-50-8	231-159-6	F R11
Carbon	10-30	7440-44-0	231-153-3	-
Electrolyte(Ethylene carbonate)	10-20	96-49-1	202-510-0	Xi R41
Lithium hexafluorophosphate	<5	21324-40-3	244-334-7	T R22;R24;R34
Stainless steel, Nickel and inert materials	Remainder	N/A	-	-

Note: See Section 8 of MSDS for exposure limit data for these ingredients. Full text of risk phrases appearing in section 3: see section 16.

This MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of the product.

4. FIRST AID MEASURES

INHALATION, EYE CONTACT, and SKIN CONTACT: Not a health hazard.

INGESTION

Drink milk/water and induce vomiting; seek medical attention.

INHALATION

Leave area immediately and seek medical attention.

EYE CONTACT

Rinse eyes with water for 15 minutes and seek medical attention.

SKIN CONTACT

Wash area thoroughly with soap and water and seek medical attention.

INGESTION



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Drink milk/water and induce vomiting; seek medical attention.

5. FIRE FIGHTING MEASURES

GENERAL HAZARD

Battery is not flammable but internal organic material will burn if the cell is incinerated.

Combustion products include, but are not limited to hydrogen fluoride, carbon monoxide and carbon dioxide.

EXTINGUISHING MEDIA

Use extinguishing media suitable for the materials that are burning.

SPECIAL FIREFIGHTING INSTRUCTIONS

If possible, remove battery from fire fighting area. If heated above 125°C, battery can explode/vent.

FIREFIGHTING EQUIPMENT

Use NIOSH/MSHA approved full-face self-contained breathing apparatus (SCBA) with full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Spilled internal cell materials, such as electrolyte leaked from a battery cell, are carefully dealt with according to the followings.

On land

Place material into suitable containers and call local fire/police department.

In water

If possible, remove from water and call local fire/police department.

7. HANDLING AND STORAGE

HANDLING

No special protective clothing required for handling individual battery.

STORAGE

Store in a cool, dry place.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

ENGINEERING CONTROLS

Keep away from heat and open flame. Store in a cool dry place.

PERSONAL PROTECTION

Respirator: Not required during normal operations. SCBA required in the event of a fire.

Eye/face protection: Not required beyond safety practices of employer.



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Gloves: Not required for handling of battery.

Skin and body protection: Working clothes with long sleeve and long trousers.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Solid
Color:	Black
Odor:	None
Vapour Pressure:	N/A
PH:	N/A
Density (Water= 1):	N/A
Ignition temperature:	N/A
Explosion limits:	Lower: Not available Upper: Not available
Boiling Point:	N/A
Freezing point:	N/A
Flash Point:	N/A
Melting point:	N/A
Solubility in Water:	Insoluble
Viscosity:	N/A

10. STABILITY AND REACTIVITY

REACTIVITY

None

INCOMPATIBILITIES

None (during normal operation). Avoid exposure to heat, open flame, and corrosives.

HAZARDOUS DECOMPOSITION PRODUCTS

None during normal operating conditions. If battery cells are opened, hydrogen fluoride and carbon monoxide may be released.

CONDITIONS TO AVOID

Avoid exposure to heat and open flame. Do not puncture, crush or incinerate.

11. TOXICOLOGICAL INFORMATION

This product does not elicit toxicological properties during routine handling and use.

Acute toxicity:

Organic Electrolyte (Ethylene carbonate)



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Acute oral toxicity (LD₅₀): 10000 mg/kg [Rat]. Acute dermal toxicity (LD₅₀): 3000 mg/kg [Rabbit].

Carcinogenicity:

No information is available at this time.

Reproductive toxicity:

No information is available at this time.

Teratogenicity:

No information is available at this time.

Mutagenicity:

No information is available at this time.

12. ECOLOGICAL INFORMATION

Some materials within the battery cell are bioaccumulative, do not bury or throw out into the environment.

Under normal conditions, these materials are contained and pose no risk to persons or surrounding environment.

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products

Dispose of in accordance with local regulations. It must undergo special treatment, e.g. at suitable disposal site, to comply with local regulations. Should not be released into the environment.

Contaminated packaging

Not applicable.

Recycling:

Send to authorized recycling facilities

RCRA Waste Code: Non-regulated

14. TRANSPORT INFORMATION

In the case of transportation, avoid exposure to high temperature and prevent the formation of any condensation. Take in a cargo of them without falling, dropping and breakage. Prevent collapse of cargo piles and wet by rain. The container must be handled carefully. Do not give shocks that result in a mark of hitting on a battery cell.

UN regulation

UN number: 3480 (3481 when the battery is contained in equipment or packed with equipment)

Proper shipping name:

Lithium ion batteries ("lithium ion batteries contained in equipment" or "lithium ion batteries packed with equipment")

Class: 9 *

Packing group: II *



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* However this product is defined as above, it is **not** recognized as "DANGEROUS GOODS" or is treated as almost non-DANGEROUS GOODS when its transport condition accords with instructions or provisions depend on region and transportation mode.

IATA Dangerous Goods Regulations 57th Edition Effective 1 January 2016.

15. REGULATORY INFORMATION

Regulations specifically applicable to the product:

Wastes Disposal and Public Cleaning Law [Japan]

Law for Promotion of Effective Utilization of resources [Japan]

US Department of Transportation 49 Code of Federal Regulations [USA]

The European Agreement concerning the International Carriage of Dangerous Goods by Road – 2015: The United Nations Economic Commission for Europe (UNECE)

16. OTHER INFORMATION

Risk phrases in section 3:

R11: Highly flammable.

R22: Harmful if swallowed.

R20/22: Harmful by inhalation and if swallowed.

R24: Toxic in contact with skin.

R34: Causes burns.

R36/37: Irritating to eyes and respiratory system.

R41: Risk of serious damage to the eyes.

R43: May cause sensitization by skin contact.

R49: May cause cancer by inhalation.

R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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This information and these recommendations are offered in good faith and believed to be correct as of the date hereof. Information and recommendations are supplied upon the condition that the recipients will make their own decision as to safety and suitability for their purposes. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose, or of any other nature, are made with respect to the product or the information and recommendations. We make no representation as to completeness or accuracy. In no event we shall be responsible for damages of any nature whatsoever resulting from the use or reliance upon the information and recommendations.



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* * * END OF MSDS * * *