



新普科技股份  
 新世電子(常熟) 有限公司  
 兆普電子(上海)  
 新普科技(重慶)  
 Simple Technology Co. LTD.  
 Simple Technology (Changshu) INC.  
 Simple Electronic (Shanghai) INC.  
 Simple Technology (Chongqing) INC.

# MATERIAL SAFETY DATA SHEET

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## 1. Product and Company Identification

Product Identification :

Lithium-Ion Rechargeable Battery Pack

Model	SCQ PN	STC PN	HP P/N	Configuration	HSTNN #
Darwin Main (DW02025XL)	996QA038H 996QA038HA	996TA038H 996TA038HA	694398-1C1	Coslight CA3076C0 ; 3380mAh;1S2P	HSTNN-IB4B
	996QA036H 996QA036HA	996TA036H 996TA036HA	694398-1B1	Lishen PP0376120AB 3380mAh; 1S2P	

Manufacturer :

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## 2. Hazards Identification

Primary routes of entry : Skin contact, Skin absorption; Eye contact, Inhalation and ingestion: No

Symptoms of exposure : Skin contact, No effect under routine handling and use.

Skin absorption : No effect under routine handling and use.

Eye contact : No effect under routine handling and use.

Inhalation : No effect under routine handling and use.

Reported as carcinogen : Not applicable

## 3. Composition / Identification on Ingredients

Substance : Lithium Ion Battery

CAS number : Reference 3-3

UN Class : Even classified as lithium batteries, they are exempted from dangerous goods.

UN-Recommendations on the Transport of Dangerous Goods Model Regulations.

\* Lithium ion cells and batteries may be offered for transport if they meet the following :

\* For cells, the Watt-hour rating should not be more than 20 Wh;

\* For batteries, the Watt-hour rating should not be more than 100 Wh. The Watt-hour rating must be marked on the outside of the battery case .

\* Each cell or battery of the type proved to meet the requirements of each test in the UN manual of tests and criteria, Part III, subsection 38.3.

\* General requirements and additional requirements, Please see Section II or IB of Packing Instruction 965, 966, 967 accordingly or UN 3480 , UN3481.



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Composition :

- 3-1. Cases: Plastic Not dangerous
- 3-2. Printed Circuit Board Assembly Not dangerous
- 3-3. Lithium Ion Cell :

Hazardous Ingredients	%	CAS Number
Graphite	7-25 %	7782-42-5
Lithium Cobalt Oxide	15-40 %	12190-79-3
Hexafluoropropylene-vinylidene fluoride Copolymer	3 -15%	9011-17-0
Lithium Hexafluorophosphate	0 - 5%	21324-40-3
Acetylene Black	0 - 2 %	1333-86-4
Diethyl Carbonate	0 -15%	105-58-8
Dimethyl Carbonate	0 -15%	616-38-6
Ethyl Methyl Carbonate	0 -15%	623-53-0
Propylene Carbonate	0 -15%	108-32-7
Ethylene Carbonate te	0 -15%	96-49-1

**4. First Aid Measures**

- Inhalation : Make the victim blow his/her nose, gargle. Seek medical attention if necessary.
- Skin contact : Remove contaminated clothes and shoes immediately. Wash extraneous matter or contact region with soap and plenty of water immediately.
- Eye contact : Do not rub one’s eyes. Immediately flush eyes with water continuously for at least 15 minutes. Seek medical attention immediately.
- Ingestion : Make the victim vomit. When it is impossible or the feeling is not well after vomiting, seek medical attention.

**5. Fire Fighting Measures**

- Extinguishing Media : Use suitable extinguishing media.
- Firefighting Equipment : Use NIOSH/MSHA approved full-face self-contained breathing apparatus (SCBA) with full protective gear.

**6. Accidental Release Measures**

- 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 :  
 Do not expose the battery to excessive physical shock or vibration. Short-circuiting should be avoided. However, accidental short-circuiting for a few seconds will not seriously affect the battery. Prolonged short circuits will cause the battery to rapidly lose energy, could generate enough heat to burn skin. Sources of short circuits include jumbled batteries in bulk containers, coins, metal jewelry, metal



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covered tables, or metal belts used for assembly of batteries in devices. To minimize risk of short-circuiting, the protective case supplied with the battery should be used to cover the terminals when transporting or storing the battery. Do not disassemble or deform the battery. Should an individual cell within a battery become ruptured, do not allow contact with water.

**Storage :**

The lithium ion battery should be between 25% and 75% of full charge when stored for a long period of time. Store in a cool, dry, well ventilated area. And temperature above 100 degree can result in loss of battery performance, leakage, or rust. Do not expose the battery to open flames.

## 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.

**Gloves :** Not required for handling of battery.

**Foot Protection :** Steel toed shoes recommended for large container handling.

## 9. Physical and Chemical Properties

State	Solid
Odor	N/A
PH	N/A
Vapor pressure	N/A
Vapor density	N/A
Boiling point	N/A
Solubility in water	Insoluble
Specific gravity	N/A
Density	N/A

## 10. Stability and Reactivity

**Reactivity :** None

**Incompatibilities :** None during normal operation. Avoid exposure to heat, open flame, and corrosives.

**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.

## 12. Ecological Information

Lithium ion battery pack can be disposable in accordance with appropriate federal, state and local regulations.

## 13. Disposal Consideration

Recommended methods for safe and environmentally preferred disposal:

Product(waste from residues)



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Do not throw out a used battery cell. Recycle it through the recycling company.

Contaminated packaging

Neither a container nor packing is contaminated during normal use. When internal materials leaked from a battery cell contaminates, dispose as industrial wastes subject to special control.

**14. Transport Information**

The 54th edition requirements of International Air Transport Association (IATA) Dangerous Goods Regulations, Comply with Section II or IB of Packing Instruction 965, 966, 967 accordingly for Lithium Ion battery. Regulations specifically applicable to the product: Special Previsions A88, A99, A154 and A164, UN 3480 (Li-ion Batteries) and UN3481 (Li-ion Batteries with equipment) US Department of Transportation (DOT) 49 code of Federal Regulations [USA] The 2013-2014 edition of International Civil Aviation Organization (ICAO) Technical Instructions . The International Maritime Dangerous Goods(IMDG) Code(Edition 2012,Special Provisions 188,230,310&957 for UN3480/3481 Lithium-Ion Battery , Packing Instruction P903 for Lithium-ion batteries)

**15. Regulatory Information**

Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria (ST/SG/AC.10/11/Rev.4)

OSHA Hazard communication standard (29 CFR 1910.1200)

\_\_\_\_\_ Hazardous                        V   Non-hazardous

**16. Other Information**

The information contained in this Safety data sheet is based on the present state of knowledge and current legislation.

This safety data sheet provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications.

Chemical substances information: Japan Advanced Information center of Safety and Health

International Chemical Safety Cards (ICSCs):

International Occupational Safety and Health Information Centre (CIS)

1999 TLVs and BEIs: American Conference of Governmental Industrial Hygienists (ACGIH)

Wastes Disposal and Public Cleaning Law [Japan]

Law for Promotion of Effective Utilization of resources [Japan]

Production of MSDS proving UN Manual of Tests and Criteria, Part III, sub-section 38.3 is met.

No	Item	Result	Remark
1	Altitude simulation	PASS	
2	Thermal test	PASS	
3	Vibration	PASS	
4	Shock	PASS	
5	External short circuit	PASS	
6	Crush	PASS	
7	Overcharge	PASS	
8	Force discharge	N/A	For cell only