





 Shanghai Research Institute of Chemical Industry Testing Co., Ltd.

Product Name: 18650 3.7V 4400mAh Li-ion battery
 Effective Date: 2019-04-09
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SAFETY DATA SHEET

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 INSPECTION
 CNAS IB0071



NO. 2619030138



Shenzhen Transtar Electronics Technology Co.,LTD

SAFETY DATA SHEET

18650 3.7V 4400mAh Li-ion battery

SECTION1 PRODUCT AND COMPANY IDENTIFICATION

Product name: 18650 3.7V 4400mAh Li-ion battery

Company: Shenzhen Transtar Electronics Technology Co., LTD

Address: 6th Floor, No.2 Building, Yihua Industrial Park, Dakan, Xili, Nanshan District, Shenzhen, Guangdong, 518003, P.R.China

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Emergency Phone: 86-13510873156

SDS Number: 2619030138

Effective Date: 2019-04-09

SECTION2 HAZARDS IDENTIFICATION

Hazards Identification: The battery has passed the test items of UN Model Regulations, Manual of Test and Criteria Section UN 38.3.

Emergency Overview: Caution: Avoid contact and inhalation the electrolyte contained inside the battery.

SECTION3 INFORMATION ON INGREDIENTS

Product name:	18650 3.7V 4400mAh Li-ion battery			
Ingredient	Concentration	CAS No.	EC No.	
Lithium cobalt oxide	25-35%	12190-79-3	235-362-0	
Aluminum	21-23%	7429-90-5	231-072-3	
Graphite	15-20%	7782-42-5	231-955-3	
Electrolyte	10-15%	623-53-0/21324-	433-480-	9/244-334-7

Handling:

SECTION 7 HANDLING AND STORAGE

Procedure of Personal Precaution:
 If batteries show signs of leaking, avoid skin or eye contact with the material leaking from the battery. Use chemical resistant rubber gloves and non-flammable absorbent materials for clean up. Mix with inert material (e.g. dry sand, vermiculite) and transfer to sealed container for disposal.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Extinguishing Media: Suitable: Dry chemical, Sandy soil, Carbon dioxide or appropriate foam.
 Firefighting: Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific hazards: Emit toxic fumes under fire conditions.

SECTION 5 FIRE FIGHTING MEASURES

Skin Exposure: If the internal battery materials of an opened battery cell come into contact with the skin, immediately flush with plenty of water.
 Eye Exposure: In case of the internal battery materials in contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.
 Inhalation Exposure: If inhaled the internal materials of battery, remove immediately to fresh air and seek medical attention.
 Oral Exposure: If swallowed the internal materials of battery, do not induce vomiting. Seek immediate medical attention.

SECTION 4 FIRST-AID MEASURES

Copper	10-11%	7440-50-8	231-159-6
Polyvinylidene fluoride	1-5%	24937-79-9	607-458-6
Acetylene black	0.5-3%	1333-86-4	215-609-9

Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Avoid exposure to heat and open flame. Avoid mechanical or electrical abuse. Prevent short circuits. Prevent movement which could lead to short circuits.

Materials to Avoid:

SECTION10 STABILITY AND REACTIVITY

Appearance: Blue plastic film shell

Odor: Odorless

Melting Point/°C: >300°C

Solubility: Partially soluble in water

SECTION9 PHYSICAL/CHEMICAL PROPERTIES

Engineering Controls: Use ventilation equipment if available. Safety shower and eye bath.

Personal Protective Equipment: Respiratory System: Not necessary under conditions of normal use.

Eyes: Not necessary under conditions of normal use.

Clothing: Wear appropriate protective clothing.

Hand: Safety gloves.

Other Protect: No smoking, drinking and eating at working site. Wash thoroughly after handling.

SECTION8 EXPOSURE CONTROL/PPE

Storage: Store in a cool, well-ventilated area. Keep away from ignition sources, heat and flame. Such batteries must be packed in inner packages in such a manner as to effectively prevent short circuits and to prevent movement which could lead to short circuits. Materials to Avoid: Strong oxidizing agents, Corrosives.

Keep away from ignition sources, heat and flame. Such batteries must be packed in inner packages in such a manner as to effectively prevent short circuits and to prevent movement which could lead to short circuits. Avoid mechanical or electrical abuse. More than a momentary short circuit will generally reduce the battery service life. Avoid reversing battery polarity within the battery assembly. In case of a battery unintentionally be crushed, rubber gloves must be used to handle all battery components. Avoid contact with eyes, skin. Avoid inhalation. No smoking at working site. Materials to Avoid: Strong oxidizing agents, Corrosives.

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Strong oxidizing agents, Corrosives.

Hazardous Polymerization:

Will not occur.

Hazardous Decomposition Products:

Metal oxides, CO, CO₂.

SECTION11 TOXICOLOGICAL INFORMATION

Toxicity Data:

Not available.

Irritation Data:

The internal battery materials may cause irritation to eyes and skin.

SECTION12 ECOLOGICAL INFORMATION

No data available.

SECTION13 DISPOSAL CONSIDERATION

Appropriate Method of Disposal of Substance:

Lithium batteries are best disposed of as a non hazardous waste when fully or mostly discharged. Contact a licensed professional waste disposal service to dispose of large quantities materials.

SECTION14 TRANSPORT INFORMATION

The product has passed the test items of UN Model Regulations, Manual of Test and Criteria Section 38.3 and UN Model Regulations, SP188, 1.2m drop test. The total net weight of the Lithium batteries is less than 10 kg.

IATA DGR (60th Edition):

Proper Shipping Name: Lithium ion batteries

UN Number: UN3480

Hazard Class: 9

The product shall meet the General Requirements and section IB of Packaging Instruction 965.

IMO IMDG Code (2016 Edition):

The product is not restricted to the other provisions of IMO IMDG Code according to special provision 188.

SECTION15 REGULATORY INFORMATION

ICAO:

1. Unless be exempted according to ICAO TI, the lithium ion cell/batteries (UN 3480, PI 965) and lithium metal cell/batteries (UN 3090, PI 968) are forbidden for carriage on passenger aircraft.
2. Unless be approved according to ICAO TI, Lithium ion cells/batteries (UN 3480, PI 965) must be offered for transport at a state of charge (SoC) not exceeding 30% of their rated design capacity.
3. A shipper is not permitted to offer for transport more than one (1) package prepared according to Section II of PI 965 and PI 968 in any single consignment. Not more than one (1) package prepared in accordance with Section II of PI 965 and PI 968 may be placed into an overpack.
4. Packages prepared according to Section II of PI 965 and PI 968 must be offered to the operator separately from other cargo and must not be loaded into a unit load device (ULD) before being offered to the operator.

SECTION16 OTHER INFORMATION

Date:

2019-04-09

Department:

Shanghai Research Institute of Chemical Industry Testing Co., Ltd.
Tel (Fax): +86-21-52815377/31765555

Revision:

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Other Information:

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18650 3.7V 4400mAh 16.28WH

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