No.SET2018-00330

# Safety Data Sheet (SDS) Report

**Client unit:** Flashbay Electronics

Name of sample: Rechargeable polymer lithium ion battery

(Model: 854546)

**Address:** Bidg B & C, Xifengcheng IND Zone, NO.2 Fuyuan

Road Heping Village, Fuyong Town, Shenzhen.



Tested by: Gu Qian Checked By: Group Weighout Approved By: Gullette

Date: Jan. 09, 2018 Date: Jan. 09, 2018 Date: Jan. 09, 2018



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#### 1 Identification of substance

**Product details** 

**Product name:** Rechargeable polymer lithium ion battery

**Model No.:** 854546

Manufacturer: Flashbay Electronics

Address: Bidg B & C, Xifengcheng IND Zone, NO.2 Fuyuan Road Heping Village, Fuyong

Town, Shenzhen.

Tel: / Fax: /

Mail: /

**SDS Code:** SET2018-00330

#### 2 Hazards identification

**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: NO Skin absorption: NO Eye contact: NO Inhalation: NO 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.



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### 3 Composition/Data on components

**Chemical characterization:** 

**Description**: (CAS#)

Chemical Name	Composition (in % by weight)	CAS No.
Cobalt Oxide	< 30	1307-96-6
Manganese dioxide	< 30	1313-13-9
Nickel oxide	< 30	1313-99-1
Carbon	< 30	7440-44-0
Electrolyte	< 20	NA
Polyvinylidene Fluoride (PVdF)	< 10	24937-79-9
Aluminum Foil	2-10	7429-90-5
Copper Foil	2-10	7440-50-8
Aluminum and inert materials	5-10	NA

#### Abbreviation:

**CAS No.** is Chemical Abstract Service Registry Number.

NA: Not Applicable.

#### 4 First aid measures

#### Inhalation

Not a health hazard.

#### Eye contact

Not a health hazard.

#### Skin contact

Not a health hazard.

#### **Ingestion**

If swallowed, obtain medical attention immediately.

# IF EXPOSURE TO INTERNAL MATERIALS WITHIN CELL DUE TO DAMAGED OUTER CASING, THE FOLLOWING ACTIONS ARE RECOMMENDED;

#### Inhalation

Leave area immediately and seek medical attention.

#### Eye contact

Rinse eyes with water for 15min.



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#### Skin contact

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

#### Ingestion

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

#### 5 Fire fighting measures

#### General Hazard:

Cell is not flammable. 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 Fire fighting Instructions:**

If possible, remove cell(s) from fire fighting area, If heated above 160℃, cell(s) may explode/vent.

#### Fire fighting 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:** No special protective clothing required for handing individual cells.

**Storage:** Store in a cool, dry place.

#### 8 Exposure controls and 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 safety practices of employer.

Gloves: Not required for handling of cells.

Foot protection: Steel toed shoes recommended for large container handling.



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## 9 Physical and chemical properties:

General Information

State: Solid

**Chemical properties:** 

**Boiling Point:** Not Applicable **Vapor Pressure:** Not Applicable **Vapor Density:** Not Applicable **Solubility In Water:** Insoluble

Specific Gravity ( $H_2O = 1$ ): Not Applicable

pH: Not ApplicableDensity: Not Applicable

Nominal Voltage(Cell/Battery/Power Bank): 3.7V

Limited Charge Voltage: 4.2V

Rated energy/capacity: 8.14Wh/2200mA Standard charge current: 440mAh Max. charge current: 1100mA Max. discharge current: 1100mA End charge current: 44mA Cut-off voltage: 2.75V

#### 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 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

Sensitization: No Teratogenicity: No

Reproductive toxicity: No

**Acute toxicity:** No

If the cells are opened through misuse or damage, discard immediately. Internal components of cell are irritants and sensitizers.



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#### 12 Ecological information

Some materials within the cell are bio-accumulative. Under normal conditions, These materials are contained and pose no risk to persons or the surrounding environment.

#### 13 Disposal considerations

California regulated debris

RCRA Waste Code: Non-regulated

Dispose of according to all federal, state, and local regulations.

#### **14 Transport information**

Number of dangerous goods: 9 UN Number: 3480 or 3481

#### **Transport Attentions:**

Rechargeable polymer lithium ion battery (Model: 854546) should be compliant with UN38.3 test requirement for air transport.

The goods shall be complied with the requirements of 59<sup>th</sup> DGR Manual the Packing Instruction 965-967, Section IB or II of IATA (2018 edition), including the passing of the UN38.3 test, And also complies with the Special Provision 188 and 230 of IMDG CODE (Amdt.38-16) 2017 Edition.

The batteries should be securely packed and protected against short-circuits. Examine whether the package of the containers are integrate and tighten closed before transport. Take in a cargo of them without falling, dropping, and breakage. Prevent collapse of cargo piles. Don't put the goods together with oxidizer and chief food chemicals. The transport vehicle and ship must be cleaned and sterilized otherwise it is not allowed to assemble articles. During transport, the vehicle should prevent exposure, rain and high temperature. For stopovers, the vehicle should be away from fire and heat sources. When transported by sea, the assemble place should keep away from bedroom and kitchen, and isolated from the engine room, power and fire source. Under the condition of Road Transportation, the driver should drive in accordance with regulated route, don't stop over in the residential area and congested area. Forbid to use wooden, cement for bulk transport.

#### 15 Regulations

OSHA Hazard communication standard (29 CFR 1910.1200) Hazardous \_\_\_\_ Non-hazardous  $\sqrt{\phantom{a}}$ 



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#### 16 Other information:

The above information are correct, but does not contain all of the information and only used as a guide. The information in this document is based on our current knowledge, it apply to this product as for the correct safety tips. The information does not guarantee the properties of this product. Our company is not responsible for any damages caused by the products.

\*\*\*\*\* END OF REPORT \*\*\*\*\*