

SAFETY DATA SHEETS

This SDS packet was issued with item:

078946651

N/A

SAFETY DATA SHEET

Creation Date : 20 Jun 2018

Last Update : Jul. 2019 According to Regulation (EU) 2015/830 (REACH Annex II) & 2006/66/EC

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1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY / UNDERTAKING

Product name **Lithium-Ion single or multi cells battery packs**
Model **FBALCO0134 7.3V 2.85Ah 20.8Wh**
Packaging per **IATA PI965 Section IB**

The batteries referenced herein are exempt articles and are not subject to the OSHA Hazard Communication Standard requirement. This safety data sheet is provided as a service to our customers.

Identification of the substance/preparation

Product name **Lithium-Ion single or multi cells battery packs**
Use of the Substance/Preparation **Battery**
Company/Undertaking Identification
Supplier **FORSEE POWER SAS**
1 Boulevard Hippolyte Marquès
94200 Ivry sur Seine
FRANCE
Emergency telephone number **+33 (0)7 82 26 35 63**

2. HAZARDS IDENTIFICATION

Classification Carcinogenic Category 3R40, Xn, sensitizing R43

Most important hazards Limited evidence of a carcinogenic effect.
Possible risks of irreversible effects. May cause sensitization by skin contact.

Further information The Lithium-Ion is a sealed battery which is not hazardous when used according to recommendations.
Under normal conditions of use, the integrity of the battery casing and security vent are maintained, the ingredients are not expected to pose a significant risk to man or the environment.

The classification above is based on the contents being considered as a preparation in accordance with Directive 1999/45/EC.

3. COMPOSITION / INFORMATION ON INGREDIENTS

The Lithium-Ion battery is hermetically sealed ; among its components, the following ones could potentially be hazardous upon release.

Product name **Lithium-Ion Battery**

Hazardous components

CAS-No	Chemical name	Quantity
1307-96-6	Cobalt oxide	< 30 %
1313-13-9	Manganese dioxide	< 30 %
1313-99-1	Nickel oxide	< 30 %
7440-44-0	Carbon	< 30 %
	Electrolyte (*)	< 20 %
24937-79-9	Polyvinylidene fluoride (PVdF)	< 10 %
7429-90-5	Aluminium foil	2 -10%
7440-50-8	Copper foil	2 -10%
	Aluminium and inert materials	5 -10%

Full text of relevant R phrases can be found in Section 15.

Further Information

For information purposes:

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(*) Main ingredients: Lithium hexafluorophosphate, organic carbonates.

Mercury content: Hg < 0.1mg/kg
Cadmium content: Cd < 1mg/kg
Lead content: Pb < 10mg/kg

4. FIRST AID MEASURES

General advice

Show this safety data sheet to the doctor in attendance.

The information below refers to exposure to the ingredients.

Inhalation

Immediate medical attention is required. Move to fresh air. If symptoms persist, call a physician.

Skin contact

Immediate medical attention is required. Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing before re-use. If skin irritation persists, call a physician.

Eye contact

Immediate medical attention is required. Remove contact lenses. Rinse immediately with plenty of water for at least 15 minutes.

Ingestion

Immediate medical attention is required. Gently wipe or rinse the inside of the mouth with water. Give small amounts of water to drink. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Centre immediately.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Foam dry powder, carbon dioxide (CO₂), sand.

Extinguishing media which must not be used for safety reasons

Water, water spray

Specific hazards

Risk of receptacle bursting.

Special protective equipment for firefighters

In the event of fire, wear self contained breathing apparatus. Wear personal protective equipment.

Hazardous decomposition products

Lithium compounds, carbon oxides, hydrogen fluoride

6. ACCIDENTAL RELEASE MEASURES

The information below refers to exposure to the ingredients.

Personal precautions

Use personal protective equipment. Avoid contact with skin and eyes.

Environmental precautions

Prevent further leakage or spillage if safe to do so.
Do not allow material to contaminate ground water system.
To avoid risks to man and the environment, comply with the instructions for use.

Methods for cleaning up

Pick up and transfer to properly labelled containers.
Dispose of in accordance with local regulations.

7. HANDLING AND STORAGE

Handling

Do not crush, pierce, short (+) and (-) battery terminals with conductive (i.e. metal) goods, which would end up into excessive heating.
Do not directly heat or solder.
Do not throw into fire.

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Do not mix batteries of different types and brands.

Do not mix new and used batteries. Keep batteries in non conductive (i.e. plastic) trays.

Do not disassemble, mutilate or mechanically abuse cells and batteries.

Storage

Store in a cool (preferably below 30°C) and ventilate area, a way from moisture, sources of heat, open flames, food and drink. Keep adequate clearance between walls and batteries. Temperature above 70°C may result in battery leakage and rupture. Since short circuit can cause burn, leakage and rupture hazard, keep batteries in original packaging until use and do not jumble them.

Other

Follow Manufacturers recommendations regarding maximum recommended currents and operating temperature range.

Applying pressure on deforming the battery may lead to disassembly followed by eye, skin and throat irritation.

Do not immerse in water.

The Li-ion cells and batteries are not designed to be recharged from external power sources besides specific Li-ion charger models approved by FORSEE POWER.

Connecting to inappropriate power supplies can result in fire or explosion.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls

Engineering measures

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Not required under normal use.

The information below refers to exposure to the ingredients.

Respiratory protection

Effective dust mask.

Hand protection

Neoprene gloves (EN 374).

Eye protection

Safety glasses with side-shields conforming to EN166

Skin and body protection

Boots, apron, long sleeved clothing.

Hygiene measures

General industrial hygiene practice.

Environmental exposure controls

The information below refers to exposure to the ingredients

Prevent product from entering drains.

Do not allow material to contaminate ground water system.

9. PHYSICAL AND CHEMICAL PROPERTIES

General Information

Form battery (sealed unit) **Colour** not applicable **Odour** odourless

Important Health Safety and Environmental Information

not applicable

10. STABILITY AND REACTIVITY

Stability

Stable under normal conditions.

Hazardous polymerization

Hazardous polymerization does not occur.

Conditions to avoid

Keep away from heat and sources of ignition.

Materials to avoid

Exposure to moisture.

Hazardous decomposition products

Lithium compounds, carbon oxides, hydrogen fluoride

11. TOXICOLOGICAL INFORMATION*The information below refers to exposure to the ingredients.***Local effects**

May cause eye/skin irritation. May cause irritation of respiratory tract.

Long term toxicity

No data available. Avoid repeated exposure.

Specific effects

May cause sensitization by inhalation and skin contact.

Limited evidence of a carcinogenic effect.

12. ECOLOGICAL INFORMATION

If used as directed, and if the integrity of the battery casing and security vent are maintained, the ingredients are not expected to pose a significant risk to the environment.

Mobility

No data available.

Persistence and degradability

Not readily biodegradable.

Ecotoxicity effects

No data available.

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.

Further information

EWC waste disposal No: 200133 - batteries and accumulators included in 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing these batteries

Never incinerate Li-Ion batteries.

Never dispose Li-Ion batteries as landfill.

14. TRANSPORT INFORMATION

UN-No 3480

ADR/RID

Class 9

Packing group II

ADR/RID-Labels

9

Proper shipping name

Lithium-ion batteries, UN 3480

IMO

Class 9

Packing group II

IMO-Labels

9

Proper shipping name

Lithium-ion batteries, UN 3480

IATA-DGR

Class 9

Packing group

ICAO-Labels

9

Proper shipping name

Lithium-ion batteries, UN 3480

IMDG code: 9033

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EMS (Emergency Schedule Number):**Emergency schedules for FIRE:** F-A**Emergency schedules for SPILLAGE:** S-I

- FORSEE POWER declares that UN Manual of Tests and Criteria, Part III, sub-section 38.3 is met.
- For marine transportation, even classified as lithium ion batteries UN3480 or UN3481 (Contained in Equipment or Packed with Equipment), the product is handled as Non-Dangerous Goods by meeting the latest IMO International Maritime Dangerous Goods (IMDG Code 2016) SP188.
- For air transportation the product is handled as UN3480 dangerous goods by meeting the IATA Dangerous Goods Regulations 60th Edition Packing Instruction 965-967, Section IB.
- The Lithium-Ion cells or batteries are produced and packed in compliance to the requirements stated in the 60th edition of the IATA Dangerous Goods Regulations Packing Instruction 965 General requirements Section IB. However, if those lithium-ion cells or batteries are pack with or contained in an equipment, then it is the responsibility of the shipper to ensure that the consignment are packed in compliance to the latest edition of the IATA Dangerous Goods Regulations General requirements and Section II Packing Instruction 966 or 967 in order for that consignment to be declared as NOT RESTRICTED (non-hazardous/non-Dangerous).
- During the transportation of a large amount of batteries by ship, trailer or railway, do not leave them in the places of high temperatures and do not allow them to be exposed to condensation.
- During the transportation do not allow packages to be fallen down or damaged.

15. REGULATORY INFORMATION

Symbol	T - Toxic Xn - Nocif Xi – Irritant
R -phrases	R10 Flammable. R20/22 Harmful by inhalation and if swallowed. R22 Harmful if swallowed. R34 Causes burns. R40 Limited evidence of a carcinogenic effect. R43 May cause sensitization by skin contact. R48/23 Toxic: danger of serious damage to health by prolonged exposure through inhalation. R49 May cause cancer by inhalation. R50 Very toxic to aquatic organisms. R53 May cause long-term adverse effects in the aquatic environment.

16. OTHER INFORMATION

S -phrases	S16 - Keep away from sources of ignition. No smoking S22 - Do not breathe dust S23 - Do not breathe gas S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice S36 - Wear suitable protective clothes S36/37 - Wear suitable protective clothing and gloves S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection. S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.