

# Contact Sheet



## Europe

 **Austria**  
Tel: + 43 4212 6400  
Sparex Austria  
Muraunberger Str  
Hurzendorf 9300

 **Belgium / Lux**  
Tel: + 32 58235140  
Sparex Belgium Bvba  
Toevluchtweg 9  
B- 8620 Nieuwpoort

 **Denmark**  
Tel: + 45 647 22287  
Sparex Denmark  
Sparex Limited ApS  
Messevej 1  
9600 Aars

 **France**  
Tel: +33 2987 89234  
Sparex S.A.R.L.  
Zae De Ty Douar  
Commana 29450

 **Germany**  
Tel: + 49 4282 93100  
Sparex Germany  
Hansestrasse 03  
Sittensen 27419

 **Ireland**  
Tel: +353 51 855592  
Sparex (Tractor Accessories) Ltd  
Grannagh  
Waterford  
Ireland

 **Italy**  
Tel: + 43 4212 6400  
Sparex Austria  
Muraunberger Str  
Hurzendorf 9300

 **Netherlands**  
Tel: + 31 235 841 020  
Sparex Holland BV  
Luzernstraat 19N  
2153 GM Nieuw-Vennep

 **Poland**  
Tel: +48 61 816 19 37  
61-168 ul. Rataje 164, Poznań

 **Portugal**  
Tel: +351 261 311107  
Sparex Portugal, Importação  
e Comércio de Peças,Lda.  
Lugar da Espera 2565-716 Runa.

 **Spain**  
Tel: + 349 451 33524  
Sparex Agrirepuestos,S.L. C/Jose Maria  
Iparraguirre  
No.15 B  
01006 Vitoria-Gasteiz (Alava)

 **UK**  
Tel: +44 1392 441338  
Sparex Limited  
Exeter Airport Devon  
Exeter EX5 2LJ

## North America

 **Canada**  
Tel: + 905 786 277  
Sparex Canada Highway  
No. 2 On Newcastle L1b 119

 **USA**  
Tel: + 1 330 562 8150  
Sparex US  
PO Box 510  
Aurora, OH 44202

## Africa

 **South Africa**  
Cape - Tel: +27 00 21 887 3575  
KZN - Tel: + 27 31 573 1240  
Cape branch  
35 George Blake St,  
Plankenburg  
Stellenbosch 7600  
KZN branch  
59 Marseilles crescent  
Briardene  
Durban 4001

## Australasia

 **Australia**  
Tel: + 61 298 205 777  
Sparex Australia Pty Ltd  
81-83 Strzelecki Avenue,  
Sunshine West, VIC 3020

 **New Zealand**  
Tel: + 64 9634 4121  
4 Princes Street Onehunga,  
Auckland 1345

## Sparex Export Markets

 **Export**  
Tel: +44 1392 441314  
Sparex Limited  
Exeter Airport  
Devon Exeter EX5 2LJ

# SAFETY DATA SHEET

## 1. Product and company identification

Product identification: Lithium-Ion Battery Commercial

product name: INR18650

Nominal Voltage: 3.7V

Nominal capacity: 2600mAh

Wh rating: 9.62Wh[1S1P]

Revision: 1.0

Manufacturers: ChangHong Grand-Pro Tech Co.,Ltd.

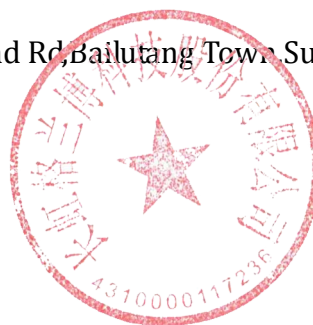
Address: The intersection of Shihu Ave. And Linjing 2nd Rd, Bailutang Town, Suxian District, Chenzhou, Hunan, China

The period of validity : At the end of 2019

E-mail: grand-pro@grand-pro.cn

Tel: (86)735-2668188

Fax: (86)735-2668799



## 2. Hazards identification

Classification: This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). This product is an article which is a sealed battery and as such does not require an MSDS per the OSHA hazard Communication Standard unless ruptured. The hazards indicated are for a ruptured battery.

Acute toxicity-Oral	category 4	Serious eye damage/eye irritation	category 2
Acute toxicity-Inhalation(Gases)	category 4	Reproductive toxicity	category 1B
Acute toxicity-Inhalation(Dusts/Mists)	category 4	Specific target organ toxicity(repeated exposure)	category 2
Skin corrosion/irritation	category 2		



Emergency Overview (including Signs and Symptoms, Route(s) of Entry, etc.)

Intact batteries present no specific hazards.

Acute Health Hazards (e.g., Inhalation, Eye Contact, Skin Contact, Ingestion, etc.):

Address: Intersection of Shihu Ave. and Linjing 2nd Rd. SuXian District, Chenzhou, Hunan, China

Tel: (86) 735-2668188 Fax: (86) 735-2668799

Burning batteries: AVOID inhalation of toxic fumes. Burning batteries emit toxic fumes, which are irritating to the lungs.

Leaking batteries: AVOID exposure to leaking electrolyte, it can cause severe irritation and/or damage to the skin, mucous membrane or eyes.

Chronic Health Effects (e.g., Carcinogenicity, Teratology, Reproduction, Mutagenicity, etc.):

Cobalt: Suspected human carcinogenic agent.

Medical Conditions Generally Aggravated by Exposure: None.

Hazards not otherwise classified(HNOC):Not applicable

Unknown Toxicity:1.7% of the mixture consists of ingredient(s) of unknown toxicity.

Other information:Very toxic to aquatic life with long lasting effects.

Interactions with Other Chemicals:Use of alcoholic beverages may enhance toxic effects.

### 3. Composition/information on ingredients

INGREDIENTS	Approximate w/w	CAS NUMBER
Lithium Cobalt Oxide (LiCoO <sub>2</sub> )	30-33	12190-79-3
Carbon (Graphite)	15-20	7440-11-0
Linear and Cyclic Carbonic solvents	5-15	N/A
Electrolyte (LiPF <sub>6</sub> /EC/DMC/EMC)	1-3	21324-40-3 /96-49-1 /616-38-6 / 623-53-0
Aluminum	2-8	7429-90-5
Copper	5-10	7440-50-8
Hexafluoropropylene-Vinylidene-Fluoride Copolymer	1-3	9011-17-0
PP/PE/PET	0.1-4	
Steel,nickel and inert polymer	0.5-4	N/A
Carbon black and others	0-3	N/A

### 4. First-aid measures

Ingestion: If swallowed, obtain medical attention immediately.

Inhalation:If battery is burning, leave the area immediately. If exposed to fumes, seek medical attention promptly.

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

Skin Contact:

If battery electrolyte leaks on to the skin flush the affected area for at least 15 minutes with clean water. DO NOT attempt to neutralize. Seek medical attention promptly.

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

### 5. Fire-fighting measures

Flammable Properties: N/A

---

Address: Intersection of Shihu Ave.and Linjing 2nd Rd.SuXian District, Chenzhou, Hunan,China

Tel: (86) 735-2668188 Fax: (86) 735-2668799

Flashpoint: Method:

Autoignition Temperature:

Flammable Limits: N/A

Lower flammable limit: Upper flammable limit:

Hazardous Combustion Products: Burning batteries may emit acrid smoke irritating fumes, and toxic fumes of fluoride.

Extinguishing Media: Carbon dioxide (CO<sub>2</sub>) or dry chemical fire extinguisher, 10-B: C.

Fire Fighting Instructions:

Personnel: Fight the fire in a defensive mode, while exiting the area. When using a CO<sub>2</sub> fire extinguisher, DO NOT re-enter the area until it has been thoroughly ventilated (i.e., purged) of the CO<sub>2</sub> extinguishing agent.

Firefighters: Use a self-contained breathing apparatus (SCBA).

## 6. Accidental release measures

Small Spill: 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.

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: Recharge batteries IAW methods specified in applicable technical manuals.

DO NOT:

Overcharge this battery.

Abuse, mutilate or short circuit the battery.

Storage: Gain approval for storage areas from the Installation Fire Department. Store batteries in a cool (i.e., 130F), dry and well ventilated area.

DO NOT:

Store batteries in direct sunlight or under hot conditions.

Smoke and keep batteries away from open flame or heat.

Store batteries in the same stacks with hazardous materials.

Store batteries in office areas, or other areas where personnel congregate.

Work/Hygienic Practices: Thoroughly wash hands after cleaning-up a battery spill (i.e., leaking or venting batteries). NO eating, drinking or smoking in battery storage areas.

## 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.

---

Address: Intersection of Shihu Ave. and Linjing 2nd Rd. SuXian District, Chenzhou, Hunan, China

Tel: (86) 735-2668188 Fax: (86) 735-2668799

Gloves: Not required for handling of cells.

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

## 9. Physical and chemical properties

Boiling Point @ 760 mm Hg (°C): NA

Vapor Pressure (mm Hg @ 25°C): NA

Vapor Density (Air = 1): NA

Density (grams/cc): NA

Percent Volatile by Volume (%): NA

Evaporation Rate (Butyl Acetate = 1): NA

Physical State: NA

Solubility in Water (% by Weight): NA

pH: NA

Appearance and Odor: geometric solid object

## 10. Stability and reactivity

Stable or unstable: Stable

Incompatibility (Materials to avoid) : NA

Hazardous decomposition products: NA

Decomposition temperature (0°F): NA

Hazardous polymerization: Will Not Occur

Condition to Avoid: Avoid electrical shorting

## 11. Toxicological information

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

Sensitization	Teratogenicity	Reproductive toxicity	Acute toxicity
NO	NO	NO	NO

This product does not contain any kinds of the following substances and halogen-type flame retardants including Chlorine and Bromide type harmful flame retardants which are listed in Appendix of TCO documents and relevant international ECO requirements:

Polybromated Biphenyls (PBB)  
Polybromated Biphenyl Ethers (PBBE)  
Polybromated Biphenyl Oxides (PBBO)  
Polybromated Diphenylethers (PBDE)  
Polychlorinated Biphenyl (PCB)  
Polychlorinated Diphenylethers (PCDE)  
Tetrabromophenol A (TBBPA)  
Asbestos, Antimonytrioxide, Dioxine

None of the following substances will be exposed, leaked, or emitted during transportation, storage or any operation and any temperature condition:

---

Address: Intersection of Shihu Ave.and Linjing 2nd Rd.SuXian District, Chenzhou, Hunan,China

Tel: (86) 735-2668188 Fax: (86) 735-2668799

Chlorinated Fluorohydrocarbon (FCKW)

Acrylonitrile

Styrol Phenol Benzol

Mercury of greater than 0.0001 wt% for alkaline battery

Mercury of greater than 0.0005 wt% for other battery

Lithium content of greater than 0.5g/battery cell Cadmium, lead, and other harmful heavy metal

This product does not contain mercury and lithium-metal.

Mercury content: <

Lithium-Ion content: <

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

## 12. Ecological information

Some materials within the cell are bioaccumulative. Under normal conditions, these materials are contained and pose no risk to persons or the surrounding environment.

## 13. Disposal considerations

Grand-Pro Polymer Lithium Ion rechargeable cells and batteries contain no toxic metals, only naturally occurring trace elements. Lithium Cells and batteries are exempted from hazardous waste standards under the Universal Waste Regulations, therefore, it is advisable to consult with local state or federal authorities as disposal regulations may vary dependent on location.

## 14. Transport information

For the international transport of lithium batteries, they must comply with these regulations: the International Maritime Dangerous Goods (IMDG) Code by International Maritime Organization (IMO), Dangerous Goods Regulations (DGR) by International Air Transport Association (IATA) and Technical Instructions for the Safe Transport of Dangerous Goods by Air (TI) by International Civil Aviation Organization (ICAO). These regulations are based on the UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria. Lithium batteries which meet the requirements of UN38.3 (UN Manual of Tests and Criteria, Part III, subsection 38.3) could be transported by air and by sea as ordinary goods, otherwise should be transported according to Class 9, Packing Group II hazardous goods. As the published of the UN Recommendations on the Transport of Dangerous Goods, all these regulations have added some new contents to regulate the transport of lithium ion batteries. We regard to air transport, the following regulations are cited and considered:

1. For lithium ion batteries, UN ID number is 3480 /Transport hazard class(es):9.
2. The International Air Transport Association(IATA) Dangerous Goods Regulations(60TH Edition 2019: complies with current IATA packing instruction of

---

Address: Intersection of Shihu Ave. and Linjing 2nd Rd. SuXian District, Chenzhou, Hunan, China

Tel: (86) 735-2668188 Fax: (86) 735-2668799

PI965-967).

3. For transported by air, Lithium-ion Cells/Batteries shipped as “Not Restricted” Cargo: Must comply with section II of PI965- PI967; For cells, the Watt-hour rating should not be more than 20Wh; For batteries, the Watt-hour rating should not be more than 100Wh. Watt- hour rating must be marked on the outside of the battery case (marked by manufacturer). (Except those manufactured before 1 January 2009, which may be transported without this marking until 31 December 2014).
  4. Each consignment must be accompanied with a document such as an air waybill with an indication. For those Lithium ion cells/ batteries contained in equipment, the equipment must be equipped with an effective means of preventing accidental activation. The telephone number for additional information for Grand-Pro cells is +86-735-2668188.
  5. Quantity per package shall not exceed 10kg.
  6. Each package must be capable of withstanding a 1.2m drop test in any orientation without damage of cells or batteries contained therein.
  7. Lithium batteries which meet the requirements of A154 could be transported by air, ( A154 Lithium batteries identified by the manufacturer as being defective for safety reasons, or that have been damaged, that have the potential of producing a dangerous evolution of heat, fire or short circuit are forbidden for transport. )
  8. Cells and batteries must be protected so as to prevent short circuits. This includes protection against contact with conductive materials within the same packaging that could lead to short circuit.
  9. Comply with SP188 of Imdg.
- Mode of transport: to air, sea, railway, highway-based.

Manual of Test and Criteria (38.3 Lithium battery)		Test Results	Remark
No.	Test Item		
T1	Altitude Simulation	Pass	
T2	Thermal Test	Pass	
T3	Vibration	Pass	
T4	Shock	Pass	
T5	External Short Circuit	Pass	
T6	Impact	Pass	
T7	Overcharge	Pass	For Pack Only
T8	Forced Discharge	Pass	For Pack Only

## 15. Regulatory information

Non-hazardous

## 16. Other information

Revision Date : 2019-03-28

Revision Note : No information available

---

Address: Intersection of Shihu Ave.and Linjing 2nd Rd.SuXian District, Chenzhou, Hunan,China

Tel: (86) 735-2668188 Fax: (86) 735-2668799

## Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, Grand-Pro makes no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. Although reasonable precautions have been taken in the preparation of the data contained herein, it is offered solely for your information, consideration. This material safety data sheet provides guidelines for the safe handling and use of this product, it does not and cannot advise on all possible situations, therefore, your specific use of this product should be evaluated to determine if additional precautions are required.

The data/information contained herein has been reviewed and approved for general release on the basis that this document contains no export controlled information.