HUIZHOU HYPERPOWER BATTERIES INC.

No.,3,Hechangdongliu Rd.,Huitai Industrial Zone,
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LITHIUM ION POLYMER BATTERY SAFETY DATA SHEET

Section1-Chemical Product and Company Identification（化学品及企业标识）

IDENTITY (As Used on Label and List) Cell Model No**: PR-533274N** Product Name: Secondary (Rechargeable) **3.7V** Li-ion Battery **1450mAh， 5.36Wh**	Note: Blank spaces are not permitted if any item is not applicable or no information is available, the space must be marked to indicate that
Manufacturer’ s Name: Huizhou Hyperpower Batteries Inc	Emergency Telephone Number +86 752-5790052
Address (Number, Street, City State, and ZIP Code) No.,3,Hechangdongliu Rd., Huitai Industrial Zone, Huicheng District, Huizhou, Guangdong,P.R.China,516006	Telephone Number for information +86 752-5790052
	Date of prepared and revision ，Feb,5th,2018

Section2-Hazards Identification（危险性概述）

Emergency overview: NIA
Classification according to GHS
Not a dangerous substance according to GHS.
Label elements
Hazard pictogram(s): No available
Signal word: No available
Hazard statement(s): No available
Precautionary statement(s):
Prevention: No available
~es~onse: No available
Disposal: No available
Environmental hazards: no relevant information.
Important symptoms: See Section 11 for more information.

Section 3-Composition Information on Ingredients（成分/组成信息）

Chemical Composition	CAS No.	Weight（%）
Cobalt lithium dioxide	12190-79-3	~30.47
Graphite	7782-42-5	~22.01
alunminium	7429-90-5	~13.34
polypropylene	9003-07-0	~12.87
Lithium hexafluorophosphate(1-)	21324-40-3	~9.26
copper(Copper foil)	7440-50-8	~8.46

Carbon black	1333-86-4	~0.84
Benzene,ethenyl-,polymer with1,3- butadiene	9003-55-8	~0.53
Poly(vinylidere fluoride)	24937-79-9	~0.78
Nickel	7440-02-0	~0.82
Sodium carboxymethyl cellulose	9004-32-4	~0.62
Remark:The battery cell does not contain the lead, mercury, cadmium.		

Section4 –First Aid Measures (急救措施)

Description of first aid measures
General information No special measures required.
After eye contact
Flush eyes with plenty of water for several minutes while holding eyelids open. Get medical attention if irritation persists.
After skin contact
Remove contaminated clothing and shoes. Immediately wash with water and soap and rinse thoroughly. Wash clothing and shoes before reuse. If irritation occurs, get medical attention.
After inhalation
Remove victim to fresh area. Administer artificial respiration if breathing is difficult. Seek medical attention.
After swallowing
Do not induce vomiting. Get medical attention.
Personal protective equipment for first-aid responders: Not available.
Most important symptoms/effects, acute and delayed: Not available.
Indication of immediate medical attention and special treatment needed: Not available.

Section5-Fire Fighting Measures (消防措施)

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Suitable extinguishing media:
Use extinguishing agent suitable for local conditions and the surrounding environment .
Such as dry powder, C02.
Unsuitable extinguishing media:
No further relevant information available,
Specific Hazards arising from the chemical:
SpeciaP'hazards arising from the substance or mixture
Battery may burst and release hazardous decomposition products when exposed to a fire situation. Lithium ion batteries contain flammable electrolyte that may vent, ignite and produce sparks when subjected to high temperature { >150℃(302F) } , when damaged or abused (e.g. mechanical damage or electrical overcharging); may bum rapidly with flare-burning effect; may ignite other batteries in clothes proximity.
Specific protective actions for fire-fighters:
Protective equipment: Wear self-contained respirator. Wear fully protective impervious suit.

Section6 –Accidental Release Measures (泄漏应急处理)

Personal precautlons:
Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation
Protective equipment:
No further relevant information available.
Emergency procedures:
Remove ignition sources, evacuate area. Sweep up using a method that does not generate dust. Collect as much of the spilled material as possible, placed thelspilled material into a suitable disposal container. Keep spilled material out of sewers, ditches and bodies of water.
Environmental precautions:
Do not allow material to be released to the environment without proper governmental permits.
Methods and materials for containment and cleaning up:
All waste must refer to the United Nations, the national and local regulations for disposal.
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

Section7–Handling and Storage (操作处置与储存)

Precautions for safe handling:
Consumption of food and beverage should be avoided in work areas.
Wash hands with soap and water before eating, drinking.
Ground containers when transferring liquid to prevent static accumulation and discharge.
Information about fire and explosion protection
Batteries may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity.
Conditions for safe storage, including any incompatibilities:
Requirements to be met by storerooms and receptacles
Store in a cool, dry, well-ventilated place.
Information about storage in one common storage facility
Keep away from heat, avoiding the long time of sunlight.
Further information about storage conditions
Keep container tightly sealed.
Specific and use
No further relevant information available.

Section8 –Exposure Controls, Personal Protection (接触控制 / 个人防护)

Engineering control :
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Remove all soiled and contaminated clothing immediately.
Wash hands before breaks and at the end of work.
Personal Protective Equipment
Respiratory protection: Wear suitable protective mask in order to reduce the respiratory system. A large number of leakage, wear chemical protective clothing, including self-contained breathing apparatus.
Hand Protection: Wear appropriate protective gloves to reduce skin contact.
Eyes Protection: Wear safety goggles or eye protection combined with respiratory protection.
Skin and Body Protection: Working environment required, wear suitable protective clothing to minimize contact with skin. The type of protective equipment must be according to the concentration and the content of certain hazardous substances in the workplace.

Section9 –Physical and Chemical Properties (理化特性)

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Information on basic physlcal and chemical properties
Colouc Silvery.
Physical State: Prismatic.
Odour: Not available.
Odour threshold: Not available.
pH: Not available.
Melting pointlfreezing point: Not available.
Initial boiling point and boiling range: Not available.
Flash Point: Not available.
Evaporation rate: Not available.
Flammability (solid, gas): Not available.
Explosion Limits (vol% In air): Not available.
Vapour pressure, kPa at 20C: Not available.
Vapor density: Not available.
DensitylRelative density (water = 1): Not available.
Solubility(ies): Not available.
Partition coefficient: n-octanoUwatec Not available.
Auto-ignition temperature: Not avgilable.
~e c omk s l t l o nte mperature: Not available.
Viscosity: Not available.

Section10 –Stability and Reactivity（稳定性和反应性）

Reactivity: Data not available.
Chemical stability: Stable.
Possibility of hazardous reactions: Data not available.
Conditions to Avoid: Flames, sparks, and other sources of ignition, incompatible materials.
Incompatibilities materials: Oxidizing agents, acid, base.
Hazardous decomposition products: Carbon monoxide, carbon dioxide, lithium oxide fumes.

Section11 –Toxicological Information（毒理学信息）

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Skin corroslon / irritation: Not available.
Serious eye damagelirritation: Not available.
Respiratory or Skin sensitization: Not available.
Germ Cell mutagenicity: Not available.
Carcinogenicity: Not available.
Reproductive toxicity: Not available.
Specific target organ toxicity-Single exposure: Not available.
Specific target organ toxicity-Repeated exposure: Not available.
Aspiration hazard: Not available.
Information on the likely routes of exposure: Not available.
Eye: Not available.
Skin: Not available.
Ingestion: Not available.
Inhalation: Not available.

Section12 –Ecologicoal Information（生态学信息）

Ecological Toxicity: No further relevant information available.
Persistence and degradability: No further relevant information available.
Bioaccumutathre Potential: No further relevant information available.
Mobility In Soil: No further relevant information available.,
Other adverse effects: No further relevant information available.

Section13 –Disposal Considerations（废弃处置）

Disposal methods:
Recommendation:
Consult state, local or national regulations to ensure proper disposal.
Uncleaned packaging
Recommendation: Disposal must be made according to official regulations.

Section14 – Transpor Information（运输信息）

(A) For Lithium Ion Cells and Batteries

Separate lithium ion battery in transit to prevent short circuit. They should be packed in strong packaging for support during transport.,and air transport capacity should be controlled under 30 percent

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The products meet all the requirements of the IATA DGR 59h edition, under special provisions A99 including UN 38.3 test and 1.2m drop test. They can be shipped as "Danger" cargo in accordance with IATA Dangerous Good Regulations Section 1B of Packing Instruction 965 of IATA DGR item UN3480.

(B) For Lithium Ion Cells and Batteries Contained in Equipment

The products meet all the requirements of the IATA DGR 59th edition, under special provisions A164 including UN 38.3 test. They can be shipped as "Not Restricted" cargo in accordance with IATA Dangerous Good Regulations Section II of Packing Instruction 967 of IATA DGR item UN3481.with total battery weight less than 5kg in one package.

(C) For Lithium Ion Cells and Batteries Packed with Equipment.

The products meet all the requirements of the IATA DGR 59th edition, under special provisions A164 including UN 38.3 test and 1.2m drop test. They can be shipped as "Not Restricted" cargo in accordance with IATA Dangerous Good Regulations Section II of Packing Instruction 966 of IATA DGR item UN3481 with total battery weight less than 5kg in one package, and less than 2pcs in one small package..

(D) The international maritime dangerous goods code.

1) Inspection method and procedure：IMO International maritime Dangerous Goods Code (2014 Edition)

2) The product and battery meets the requirements in IMDG CODE (Amdt.37-14) Special provision 188; it can be transported by sea under this Special provision

Transport condition is not restricted according to "special provision 188 of IMO-IMDG Code","

Section15 – Regulatory Information（法规信息）

Note: This regulatory information included here should not necessarily all inclusive. None of the ingredients in this product are subjected to be reporting requirements of the CERCLA, the Clean Air Act and Clean Water Act (US). This product is not formulated with, nor do the manufacturing or formulation processes utilize an Class I or II Ozone depleting substances

Section16– Other Information（其它信息）

The recommendations and information contained in this MSDS have been compiled from Sources believed to represent the most current information available when the MSDS was Prepared. However, the manufacturer/distributor of this product provides any warranty. Guaranty or representation as to the correctness or sufficiency of this information. If this product is to be used in large amounts and /or an unusual manner, the user is obliged to determine what safety measures are appropriate, including the applicable and relevant workplace and environmental regulations pertaining to handling, use and disposal.

DISCLAIMER OF LIABILITY

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