



Test Report

No.: S251216041003-1

Date: Dec 19, 2025

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Material Safety Data Sheet (MSDS)

Sample Name: SUPER HEAVY DUTY

Tested Model: R03P

Additional Model: R03, R6P, R6, R20, R14, R1, 6F22, R20P

Customer: Shenzhen New Positive Energy Electronics Co., Ltd.

Customer Address: 510, Weifeng Building, 6301 Bao'an Avenue, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen

WRITTEN BY

Zoey Zhang

Zoey Zhang

REVIEWED BY

Sunshine Liu

Sunshine Liu

Soar Testing Certification
(GuangDong) Co., Ltd.

APPROVED BY

Frank Wu

Frank Wu

Approved signatory



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Lab name: Soar Testing Certification (GuangDong) Co., Ltd.
Post Code: 523945

Tel: (86-769) 38937518

Address: Room 1093, No.12, East of Houjie Avenue, Houjie, Dongguan, Guangdong, China
E-mail: service@soar-cert.com

Website: <http://www.soartestlab.com>



Material Safety Data Sheet

Section 1 - Chemical Product and Company Identification

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Tested Model: R03P

Additional Model: R03, R6P, R6, R20, R14, R1, 6F22, R20P

Customer: Shenzhen New Positive Energy Electronics Co., Ltd.

Customer Address: 510, Weifeng Building, 6301 Bao'an Avenue, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen

Manufacturer: Shenzhen New Positive Energy Electronics Co., Ltd.

Manufacturer Address: 510, Weifeng Building, 6301 Bao'an Avenue, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen

Contact Person: Liu Youfu

Tel: 19120237642

E-mail: 1817219909@qq.com

Section 2 - Hazards Identification

Fatalness grade: In accordance with Regulation (EC) No. 1272/2008, the sample is not divided into dangerous article.

Routes of Entry: Not applicable under normal conditions

Health Hazards: In case of leakage, will be cause itchy or chemical burns when direct contact with electrolyte

Hazards to Environment: Not applicable

Fire and Explosion Hazards: Not applicable

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**Section 3 –Composition/Information on Ingredient**Pure Admixture **Composition:**

| Chemical Name | CAS No. | Composition(in% by weight) | EC No. |
|-------------------|------------|-------------------------------|-----------|
| Manganese Dioxide | 1313-13-9 | 37% | 215-202-6 |
| Zinc | 7440-66-6 | 33% | 231-175-3 |
| Carbon Black | 1333-86-4 | 10% | 215-609-9 |
| Water | 7732-18-5 | 14.2% | 231-791-2 |
| Ammonium Chloride | 12125-02-9 | 0.6% | 235-186-4 |
| Iron | 7439-89-6 | 2% | 231-096-4 |
| Paper | 94114-26-8 | 0.5% | 302-660-8 |
| Polypropylene | 9003-07-0 | 1.5% | 618-352-4 |
| Zinc Chloride | 7646-85-7 | 1.2% | 231-592-0 |
| Lead (Pb) | 7439-92-1 | <0.001% | 231-100-4 |

Note:

- 1.The CAS number is the Chemical Abstracts Service registration number
- 2.EC No. is the European INventory of Existing commercial(EINECS)

Section 4 - First Aid Measures

Skin Contact: If exposed to a leaking cell, remove contaminated clothing. Wash exposed areas with plenty of water and soap. If irritation occurs, consult a physician.

Eyes Contact: If a cell is leakage and materials contact eyes, flush immediately with running water for at least 15 minutes. Consult an ophthalmologist at once.

Inhalation: If vapor from vented or leaked cells are inhalation. move to fresh air and get medical attention.

Ingestion: Get immediately medical attention, do not induce vomiting or give a liquid to unconscious person.

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Section 5 - Fire Fighting Measures

Hazard Characteristic: Not available

Hazards Expose to Combustion Products: In case of fire, carbon dioxide, carbon monoxide and other toxic organic substances will be generated. Do not inhale fumes and smoke.

Extinguishing Media: In case of fire, you can use any class of fire extinguisher.

Special Fire Fighting Procedures: Fire fighters should wear self-contained breathing apparatus.

Section 6 –Accidental Release Measures

Precautions: Avoid direct contact with the leaking or ruptured cells. Avoid short circuit.

Methods for Clean Up: Care for well-ventilated conditions. Recycle or dispose of the materials in an appropriate way.

Section 7 - Handling and Storage

Precaution: Handling and transfer the products carefully, make sure the packing always in good condition.

Damaged packing may cause cells contact together, in this case cells may short circuit or improperly connected, it cause cells venting, leaking or exploding.

Storage: Store in a dry, cool and well-ventilated area.

Section 8 - Exposure Controls, Personal Protection

Respiratory Protection: In case of battery venting, provide as much ventilation as possible. Avoid confined areas with venting cell cores. Respiratory Protection is not necessary under conditions of normal use.

Ventilation: Not necessary under conditions of normal use.

Protective Gloves: Not necessary under conditions of normal use.

Other Protective Clothing or Equipment: Not necessary under conditions of normal use

Personal Protection is recommended for venting battery: Respiratory Protection, Protective Gloves, Protective Clothing and safety glass with side shields.

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Section 9 - Physical and Chemical Properties

Physical State and Appearance: Cylindrical

Odor: Odorless

Melting Point (°C): N/A

Boiling Point (°C): N/A

Vapor Pressure (kPa): N/A

Critical Temperature (°C): NA

Partition Coefficient: N/A

Ignition Temperature (°C): N/A

Solubility in Water: N/A

pH: N/A

Specific Gravity (H₂O=1): N/A

Vapor Density (Air=1): N/A

Heat of Combustion (kJ/mol): N/A

Critical Pressure (MPa): N/A

Flash Point (°C): N/A

Explosion Limit % (V/V): N/A

Solubility in Other Solvents: N/A

Sample State: Solid

Sample Package: Intact

Ambient Condition During Testing: 20°C, 45% RH.

Section 10 - Stability and Reactivity

Stability: Stable

Incompatibility: None

Condition to Avoid: Avoid shorting, mechanical & thermal abuse.

Hazardous Polymerization: Will not occur.

Hazardous Decomposition: None.

Section 11 - Toxicological Information

Note: Since the materials in this cell are sealed in the can, the potential for exposure to the components of the cell is negligible. when the cell is used as directed. However technical or electrical abuse of the cell may result in the release of cell contents.

Toxicity to Animals: Not applicable

Chronic Effects on Human: Not applicable

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Section 12 - Ecological Information

This product has not been tested for environmental effects.

Section 13 - Disposal Considerations

Waste disposal methods shall be disposed of in accordance with the requirements of relevant national and local laws and regulations. Or contact the manufacturer to Determine the disposal method.

Section 14 - Transport Information

According to IATA DGR 67th (2026) for transportation. The product as a non restricted goods transport.

Alkaline battery are considered to be "dry cell" batteries and are unregulated for purposes of transportation by the U.S. Department of Transportation (DOT), International Civil Aviation Administration (ICAO), International Air Transport Association (IATA) and the International Maritime Organization (IMO).

The only requirements for shipping these cells by DOT is Special Provision 130 which states: "Batteries, dry are not subject to the requirements of this subchapter only when they are offered for transportation in a manner that prevents the dangerous evolution of heat (for example, by the effective insulation of exposed terminals).

The only requirements for shipping these cells by ICAO and IATA is Special Provision A123 which states: An electrical battery or battery powered device having the potential of dangerous evolutions of heat that is not prepared so as to prevent a short-circuit (e.g. in the case of batteries, by the effective insulation of exposed terminals; or in the case of equipment, by disconnection of the battery and protection of exposed terminals) is forbidden from Transportation.

The International Maritime Dangerous Goods Code (IMDG) regulate them for ocean transportation under Special Provision 304 which say: batteries, dry, containing

Corrosive electrolyte which will not flow out of the battery if the battery case is cracked are not subject to the provisions of this Code provided the batteries are securely packed and protected against short-circuits. Examples of such batteries are: alkali-manganese, zinc-carbon, mickel metal hydride and nickel-cadmium batteries.

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Section 15 - Regulatory Information

Special requirement be according to the local regulatory.

Section 16 - Additional Information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier, nor any its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Remark: The evaluation report is based on official website data and customer supply information, only for customer research, teaching, internal quality control, product development and other purposes, for reference only.

*** End of Report ***

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