

MATERIAL SAFETY DATA SHEETS

Applicant : Shenzhen New Positive Energy Electronics Co., Ltd.
Address : Room 510, Weifeng Building, No.6301 Baoan Avenue, Qiaotou Community, Fuhai Street, Baoan District, Shenzhen
Manufacturer : Shenzhen New Positive Energy Electronics Co., Ltd.
Address : Room 510, Weifeng Building, No.6301 Baoan Avenue, Qiaotou Community, Fuhai Street, Baoan District, Shenzhen

SAMPLE INFORMATION

Sample name : SUPER HEAVY DUTY
Sample Model : R03, R03P, R6P, R6, R20, R14, 6F22, R20P
Trademark : N/A

TEST INFORMATION

Receipt Date : 2024-12-23
Issue Date : 2025-01-02
Test Items : Material Safety Data Sheets

REMARKS

1. The test report is valid for above tested sample only and shall not be reproduced in part without written approval of the laboratory.
2. Sample State: Solid
3. Sample Package: Intact
4. Ambient Condition During Testing: 20 °C, 45% RH.

Violet Fan

Test/Witness Engineer



Approved & Authorized



Section 1 - Material and vendor information

Identification of the preparation : SUPER HEAVY DUTY
Company Identification : Shenzhen New Positive Energy Electronics Co., Ltd.
Company Address : Room 510, Weifeng Building, No.6301 Baoan Avenue,
Qiaotou Community, Fuhai Street, Baoan District, Shenzhen
Off-hour Emergency Phone Number : 0755-27909767
E-mail : 3027271994@qq.com

Section 2 - Composition/ Information on Ingredients

Pure ☐ Admixture ☒

Composition:

Component/Substance	Percentage by weight	CAS#
Manganese Dioxide	37%	1313-13-9
Zinc	33%	7440-66-6
Carbon Black	10%	1333-86-4
Water	14.2%	7732-18-5
Ammonium Chloride	0.6%	12125-02-9
Iron	2%	7439-89-6
Paper	0.5%	66096-61-4
Polypropylene	1.5%	9003-07-0
Zinc Chloride	1.2%	7646-85-7

Section 3 - Hazards Identification

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

Section 4 - Emergency Treatment

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.

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 - Emergency Handling of Leakage

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 - Safety 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 - Contact Control and 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.

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

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 - Toxicology Analysis

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

Section 12 - Ecological Information

This product has not been tested for environmental effects.

Section 13 - Waste Disposal

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 - Transportation Information

According to IATA DGR 66th (2025)for transportation.The product as a non restricted goods transport.

SUPER HEAVY DUTY 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 bateery 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.

Section 15 - Laws and Regulations Details

Special requirement be according to the local regulatories.

Section 16 - Other Information

Department: Quality department.

Data Audit Units: Shenzhen HX Detect Certification Co., Ltd.

Disclaimer: The information in this Material Safety Data Sheet (MSDS) was obtained from sources which we believe are reliable; however, the information is provided without any representation of warranty, expressed or implied, regarding the accuracy or correctness. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with the handling, storage, use, or disposal of this product. All information, recommendations, and suggestions appearing herein concerning this product are taken from sources or based upon data believed to be reliable.

***** (END OF REPORT) *****