No.SET2014-14786

MSDS Report

Client unit: SHENZHEN PKCELL BATTERY CO.,LTD

Name of sample: Super heavy duty Battery

Address: E2 Building, Guangming Technology Park, No.24 Zhonghua Road, Longhua New Area, Shenzhen, China

Tested by: Xie Lingling Checked By: Allen Approved By: Billow

Date: Jan.07, 2015 Date: Jan.07, 2015 Date: Jan.07, 2015

1 Identification of substance

Product details

Product name: Super heavy duty Battery

Manufacturer: SHENZHEN PKCELL BATTERY CO.,LTD

Address: E2 Building, Guangming Technology Park, No.24 Zhonghua Road, Longhua New Area, Shenzhen, China

Producer: SHENZHEN PKCELL BATTERY CO.,LTD

Address: E2 Building, Guangming Technology Park, No.24 Zhonghua Road, Longhua New Area, Shenzhen, China

Model No.: R20P/R14P/R6P/R03P/6F22 /3R12/4R22

Tel: 0755-86670642 **Emergency telephone:** 0755-86670643 **Fax:** 0755-86670609

Mail: info@pkcell.com

MSDS Code: SET2014-14786

2 Composition/Data on components

Chemical characterization:

Description : (CAS#)

Chemical Name	In % By Weight	CAS No.	EC No.	Molecular Formula
Manganese Dioxide	48	1313-13-19	215-202-6	MnO_2
Zinc	28.5	7440-66-6	231-175-3	Zn
Acetylene	3.8	74-86-2	200-816-9	C_2H_2
Stainless Steel	11.36	12681-83-3	NA	NA
Water	7.2	7732-18-5	231-791-2	H_2O
Graphite	3	7782-42-5	231-955-3	C
others	0.84	NA	NA	NA

Abbreviation: CAS No. is Chemical Abstract Service Registry Number.
EC No. is European Inventory of Existing Commercial chemical Substances Number.
NA = Not apply.

3 Hazards identification

Emergency Overview: May explode in a fire, which could release hydrogen fluoride gas.
Use extinguishing media suitable for materials burning in fire.

Primary routes of entry: Skin contact, Eye contact, Inhalation, Ingestion

Symptoms of exposure:
Skin contact: Contact with damaged batteries may cause burns.
Eye contact: Contact with damaged batteries may cause burns. Eye damage is possible.
Inhalation: Inhalation of vapors or fumes released due to heat or a large number of leaking batteries may cause respiratory and eye irritation.
Ingestion: Swallowing is not anticipated due to battery size. Ingestion of battery contents may cause mouth, throat and intestinal burns and damage.
Reported as carcinogen: Not applicable.

4 First aid measures

Inhalation
Not a health hazard.
Eye contact
Not a health hazard.
Skin contact
Not a health hazard.
Ingestion
If swallowed, obtain medical attention immediately.

IF EXPOSURE TO INTERNAL MATERIALS WITHIN CELL DUE TO DAMAGED OUTER CASING, THE FOLLOWING ACTIONS ARE RECOMMENDED;
Inhalation
Leave area immediately and seek medical attention.
Eye contact
Rinse eyes with water for 15min.
Skin contact
Wash area thoroughly whit soap and water and seek medical attention.
Ingestion
Drink milk/water and induce vomiting; seek medical attention.

5 Fire fighting measures

General Hazard:
Cell is not flammable. Combustion products include, but are not limited to Hydrogen fluoride, carbon monoxide and carbon dioxide.
Extinguishing Media:
Use extinguishing media suitable for the materials that are burning.
Special Fire fighting Instructions:
If possible, remove cell(s) from fire fighting area, If heated above 160℃, cell(s) may explode/vent.
Fire fighting Equipment:
Use NIOSH/MSHA approved full-face self-contained breathing apparatus (SCBA) with full protective gear.

6 Accidental release measures

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: Closed operation. To supply with sufficient partial air exhaust. The operating staff must have received special training and abide by the operating regulations. It is advised that the staff wear work clothes, respirator, chemical protective glasses and gloves. Keep away from fire and heating sources. No smoking in the workplace. Avoid contacting with oxidizers and acid. Do not expose the battery to excessive physical shock or vibration. Short-circuiting should be avoided. Place the cell beyond the child's reach. Take care when transport, prevent damaging the packing and container. Equip with relevant types and quantities of extinguishment instruments and device for divulgence handling. Empty the container which may include harmful material.
Storage: Store in a cool, dry place. Keep away from fire and heating sources. Don't keep the samples with oxidizer and acid. Equip with relevant types and quantities of the extinguishment instruments. The storage place should be equipped with suitable shelter materials for divulgence handling.

8 Exposure controls and 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 safety practices of employer.
Gloves: Not required for handling of cells.
Foot protection: Steel toed shoes recommended for large container handling.

9 Physical and chemical properties:

General Information
State: Colored cylinder solid
Color: Green
Chemical properties:
Melting Point: Not Applicable
Vapor Pressure: Not Applicable
Vapor Density: Not Applicable
Solubility In Water: Insoluble
Specific Gravity (H_2O = 1): Not Applicable
pH: Not Applicable
Density: Not Applicable
Nominal Voltage(Cell/Battery/Power Bank): 1.5V

10 Stability and reactivity

Reactivity: None.
Incompatibilities: None during normal operation. Avoid exposure to heat, open flame, and corrosives.
Hazardous Decomposition Products: None during normal operating conditions. If cells are opened, hydrogen fluoride and carbon monoxide may be released.
Conditions to Avoid: Avoid exposure to heat and open flame. Do not puncture, crush or incinerate.

11 Toxicological information

This product does not elicit toxicological properties during routine handling and use
Sensitization: The liquid in the battery may cause sensitization to some person.
Teratogenicity: No information is available.
Reproductive toxicity: No information is available.
Acute toxicity: No information is available.

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 bio-accumulative. Under normal conditions, These materials are contained and pose no risk to persons or the surrounding environment.

13 Disposal considerations

California regulated debris
RCRA Waste Code: Non-regulated
Dispose of according to all federal, state, and local regulations.

14 Transport information

In general, all batteries in all forms of transportation (by sea, land or air) must be packaged in a safe and responsible manner. Regulatory concerns from all agencies for safe packaging require that batteries be packaged in a manner that prevents short circuits and be contained in “strong outer packaging” that prevents spillage of contents.

The batteries are considered to be “Dry cell” batteries and are unregulated for purpose of transportation by the U.S. Department of Transportation (DOT), International Civil Aviation Administration (ICAO), International Air Transport Association (IATA) and International Maritime Dangerous Goods Regulations (IMDG).

The only DOT requirement for shipping these batteries 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 says: batteries, dry, containing corrosive electrolyte which will not flow out of the battery if the battery case is cracked are not subject to the provision of this code provided the batteries are securely packed and protected against short-circuits. Example of such batteries are: alkali-manganese, zinc carbon, nickel metal hydride and nickel-cadmium batteries. Such batteries have been packed in inner packaging in such a manner as to effectively prevent short circuit and movement that could lead to short-circuit.

For air transportation, the words “Not Restricted” and the Special Provision number “A 123” must be included in the description of the substance on the Air Waybill, when an Air Waybill is issued.

15 Regulations

OSHA Hazard communication standard (29 CFR 1910.1200)
Hazardous ___ Non-hazardous √__
ISO 11014-2009 Safety data sheet for chemical products - Content and order of sections.
The International Air Transport Association (IATA) Dangerous Goods Regulations, 56th, 2015.
The International Maritime Dangerous Goods (IMDG) Code (inc Amdt 36-12).

16 Other information:

The above information are correct, but does not contain all of the information and only used as a guide. The information in this document is based on our current knowledge, it apply to this product as for the correct safety tips. The information does not guarantee the properties of this product. Our company is not responsible for any damages caused by the products.

Note:
-Sample photo: