

Material Safety Data Sheet

1 Identification of the substance/preparation and of the company/undertaking

.Product details

.Trade name: Batteries

.Trade code: R6

.Application of the substance: Electrical Appliances

.Manufacturer/Supplier: SUZHOU LEGIONBATTERY CO.,LTD

Industry Park of Beiqiao Town Xiangcheng District Su Zhou

Tel: +86-512-6599 6568-804

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.Further information obtainable from: SUZHOU LEGIONBATTERY CO.,LTD

.Information in case of emergency: SUZHOU LEGIONBATTERY CO.,LTD

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Contact: Wang Weifen

2 Composition/information on ingredients

.Chemical characterization

.This product contains the following ingredient at levels subject to reporting requirements of:

.Components Number:	CAS Number	Approximate(%)by Wt.Or Vol.
Zinc	7440-66-6	26.78%
Electrolyte	7664-93-9	26.7%
Manganese dioxide	1313-13-9	28.9%
Ethyne	74-86-2	5.5%
Cellulose Paper	9004-34-6	1.41%
Sealant	-- -- --	2.6%
Carbon rod	-- -- --	8.11%



3 Hazards identification

.EMERGENCY OVERVIEW

WARNING!

This product contain much amounts of electrolyte, electrolyte Has a strong corrosive , when the products have leaked sulfuric acid must avoid Any part of the body to contact with the disclosure material.

.Potential Health Effects:

*This product contain much amounts of lead zinc. Long-term to contact zinc well lead Thirst, chest tightness, dry cough, headache, dizziness, high fever, chills and so on.
dust will irritant eye .And Long-term repeated exposure will lead to skin irritation*

.Eye Contact: *Without any eye contact harm to the product itself, when the products have composition leaked Vapor or mist can cause eye irritant.*

.Skin Contact: *Without any skin contact harm to the product itself, when the products have composition leaked leaked on the skin and mucous membrane and other organizations have a role in stimulating and corrosion.*

.Inhalation: *electrolyte by inhalation will cause respiratory tract irritation, difficulty in breathing occurred in severe cases, and pulmonary edema; there are likely to cause supraglottic laryngeal spasm or edema and died of suffocation.*

.Ingestion: *ingestion may be a choking hazard, And will stimulate the gastrointestinal tract.*

.Chronic or Special Toxic Effects:

Used batteries if not be reasonable recycling, the environment will be a lot of harm, the battery contained in the various non-degradable material, this material will cause the soil and water pollution, and it will cause the potential chronic health hazards to human.

.Target Organs:

Overexposure to specific components of this product that are generated in dusts or fumes may cause adverse effects to the following organs or systems: eyes, skin, liver, kidney, central nervous system, cardiovascular system, respiratory system,.

4 First aid measures

.Eye Contact: *immediately flush eyes with plenty of water for at least 15 minutes occasionally lifting the eye lids. Get medical attention if irritation persists. Thermal burns should be treated as medical emergencies.*

.Skin Contact: *wash with plenty of water. Get medical attention if irritation develops or persists. If thermal burn occurs, flush area with cold water and get immediate medical attention.*

.Inhalation: *remove to fresh air. Such as difficulty in breathing, give oxygen. Such as respiratory arrest, artificial respiration immediately. Medical treatment.*

.Ingestion: *Drink enough water, emetic. Gastric lavage, guided China. Medical treatment.*

.Notes to Physician: *Welding sawing grinding product inhalation of metal fume or metal oxides may produce an acute febrile state, with cough, chills, weakness, and general malaise, nausea, vomiting, muscle cramps, and remarkable leukocytosis. Treatment is symptomatic, and condition is self limited in 24-48 hours. Chronic exposure to dusts may result in pneumoconiosis of mixed type.*

5 Fire-fighting measures

- .Flash Point (Method):** Not applicable
- .Flammable Limits (% volume in air):**Not applicable
- .Autoignition Temperature:** Not applicable
- .Extinguishing Media:** use dry powder carbon dioxide or sand.
- .Special Fire Fighting Procedures:** Do not use water on combustion products. Firefighters should not enter confined spaces without wearing NIOSH/MSHA approved positive pressure breathing apparatus (SCBA) with full face mask and full protective equipment.
- .Unusual Fire or Explosion Hazards:**
Charge in a long time or the case of short circuit and Combustion products due to internal temperature will produce explosion, water with Burning object will splash out much heat will Splash and burn the skin

6 Accidental release measures

- .Precautions if Material is Spilled or Released :**
Leak contaminated areas evacuated personnel quickly to a safe area, and isolation and strict restrictions on access. Proposals emergency personnel wearing positive pressure self-contained breathing apparatus, acid-base anti-wear overalls. Do not direct contact with leakage. Cut off the source of leakage as possible. To prevent the inflow of sewage.
- small leakage:** use sand, dry lime or soda ash mixed. With plenty of water can also rinse, diluted Add Water WastewaterSystems.
- much leakage:** to build a dike or trench to accept. Transferred to tanks with pumps, or within a dedicated collector, recycling or shipped to the disposal of waste disposal sites.
- .Environmental Precautions:** product may contain reportable quantities of alloying elements. See Section 15 for additional information.

7 Handling and storage

- .Storage Temperatures:** Stable under normal temperatures and pressures.
- .Precautions to be Taken in Handling and Storing:** Store away from strong oxidizers. Dusts or powders may form explosive mixtures with air. Avoid breathing dusts or fumes.

8 Exposure controls/personal protection

- Operations with potential for generating high concentrations of airborne particulates or fumes should be evaluated and controlled as necessary.**
- .Eye Protection:** Use safety glasses. Dust resistant safety goggles are recommended under circumstances.
- .Skin:** Appropriate protective gloves should be worn as necessary. Good personal hygiene practices should be followed including cleansing exposed skin several times daily with soap and water and laundering or dry cleaning soiled work clothing.
- .Respiratory Protection:** NIOSH/MSHA approved dust/fume/mist respirator should be used to avoid excessive exposure. See Section 2 for component material information exposure limits. If such concentrations are sufficiently high that this respirator is inadequate, or high enough to cause oxygen deficiency, use a positive pressure self-contained breathing apparatus (SCBA). Follow all applicable respirator use, fitting, and training standards and regulations.
- .Ventilation:** Provide general and/or local exhaust ventilation to control airborne levels of dust or fumes below exposure

limits.

.Exposure Guidelines: No permissible exposure limits (PEL) or threshold limit values (TLV) exist for steel. See Section 2 for component materials. Product will contain different combinations of these elements. Trace elements may also be present in minute amounts.

9 Physical and chemical properties

.General Information	
.Form:	Cylinder
.Color:	golden
.Odor:	No odor
.Change in condition	
.Melting point/Melting range:	Not available
.Boiling point/Boiling range:	Not available
.Flash point:	Not applicable
.Self-igniting:	Product is will self-igniting
.Danger of explosion:	Not available
.Density:	Not available
.Relative density:	Not available
.Vapor density:	Not available
.Evaporation rate	Not available
.Solubility in/Miscibility with	
.Water:	Not miscible
.PH-Value:	Not available
.Viscosity:	
.Dynamic:	Not available

10 Stability and reactivity

.Stability - Stable

.Conditions to Avoid: Products to avoid violent collision

.Hazardous Polymerization: Will not occur.

.Incompatibility (Materials to Avoid): acidic, acidic metal, water, strong reducing agents, flammable or combustible.

.Hazardous Decomposition Products: Metallic fumes may be produced during burning, grinding, and possibly machining or any situation with the potential for thermal decomposition.

11 Toxicological information

Breathing fumes or dusts of this product may result in metal fume fever, which is an illness produced by inhaling metal oxides. These oxides are produced by heating various metals including cadmium, zinc, magnesium, copper, antimony, nickel, cobalt,

manganese, tin, lead, beryllium, silver, chromium, aluminum, selenium, iron, and arsenic. The most common agents involved are zinc and copper.

This product may contain small amounts of manganese. Prolonged exposure to manganese dusts or fumes is associated with "manganism", a Parkinson-like syndrome characterized by a variety of neurological symptoms including muscle spasms, gait disturbances, tremors, and psychoses.

This product may contain small amounts of cadmium. Primary target organs for cadmium overexposure are the lung and the kidney. Because of its cumulative nature, chronic cadmium poisoning can cause serious disease which takes many years to develop and may continue to progress despite cessation of exposure. Progression of the disease may not reflect current exposure conditions. It is also capable of causing a painful osteomalacia called "Itai-Itai" in postmenopausal women, and has caused developmental effects and/or reproductive effects in male and female animals. Cadmium is a listed carcinogen by NTP, OSHA, and IARC (Group 1).

This product may contain small amounts of chromium. Prolonged and repeated overexposure to chromium dusts or fumes may cause skin ulcers, nasal irritation and ulceration, kidney damage and cancer of the respiratory system. Chromium is a skin sensitizer. Cancer is generally attributed to the hexavalent (+6) form of chromium which is listed as a carcinogen by NTP and IARC (Group 1).

This product may contain small amounts of nickel. Prolonged and repeated contact with nickel may cause sensitization dermatitis. Inhalation of nickel compounds has caused lung damage as well as sinus, nasal and lung cancer in laboratory animals. Nickel is a listed carcinogen by NTP and IARC (Group 1).

This product may contain small amounts of vanadium. Adverse effects from dermal, inhalation or parenteral exposure to various vanadium compounds have been reported. The major target for vanadium pentoxide toxicity is the respiratory tract. Fumes or dust can cause severe eye and respiratory irritation, and systemic effects. Chronic bronchitis, green tongue, conjunctivitis, pharyngitis, rhinitis, rales, chronic productive cough, and tightness of the chest have been reported following overexposure. Allergic reactions resulting from skin and inhalation exposures have also been reported. A statistical association between vanadium air levels and lung cancer has been suggested, but vanadium currently is not regarded as a human carcinogen.

The product may contain small amounts of copper. Copper dust and fume can irritate the eyes, nose and throat causing coughing, wheezing, nosebleeds, ulcers and metal fume fever. Other effects from repeated inhalation of copper fume include a metallic or sweet taste, and discoloration of skin, teeth or hair. Copper also may cause an allergic skin reaction. Overexposure to copper can affect the liver.

.Toxicity to Animals: LD50: Not available. LC50: Not available.

.Chronic Effects on Humans: CARCINOGENIC EFFECTS: Classified NONE by NTP, NONE by OSHA. 3 (Not classifiable for human.) by IARC.

.Other Toxic Effects on Humans: None

.on the skin: Sensitizing effects known.

.on the eye: Sensitizing effects known.

.Carcinogenicity: None Determined.

.Mutagenicity: None Determined.

.Teratogenicity: None Determined.

12 Ecological information

.Aquatic Ecotoxicological Data, Environmental Fate Dat

The hazardous substances on the environment, special attention should be on the water and soil pollution.

13 Disposal consideration

Recovery and reuse, rather than disposal, should be the ultimate goal of handling efforts. Disposal liquid inside the product. Slowly adding lye, and continuously stirring, the reaction stopped, with plenty of water into the wastewater system.

14 Transport information

.DOT Proper Shipping Name: Not regulated

.DOT Hazard Classification: Not regulated

.UN/NA Number : Not applicable

.DOT Packing Group: Not applicable

.Labelling Requirements: Not applicable

.Placards: Not applicable

.DOT Hazardous Substance: Not applicable

.DOT Marine Pollutant: Not applicable

15 Regulatory information

CALIFORNIA PROPOSITION 65

This product contains chemicals (antimony [oxide], arsenic, beryllium, chromium [hexavalent], cobalt, cadmium, lead, nickel) known to the State of California to cause cancer and chemicals (cadmium, lead) known to the State of California to cause birth defects or other reproductive harm.

Regulatory Lists

Some components of this product may be specifically listed by individual states; other product-specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements, you

should contact the appropriate agency in your state.

Toxic Substances Control Act (TSCA)

Components of this product are listed on the TSCA Inventory.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)

Steel is not reportable, however, it contains hazardous substances that may be reportable if released in pieces with diameters less than or equal to 0.004 inches (RQ marked with a “*”).

Chemical Name	Reportable Quantity (in lb)
Chromium	5000*
Nickel	100*
Phosphorus	1
Zinc	1000*

Superfund Amendments and Reauthorization Act of 1986 (SARA), Title III

SECTION 311/312 HAZARD CATEGORIES: Immediate Health Effect, Delayed Health Effect This product contains the following EPCRA Section 313 chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right – To – Know Act of 1986 (40 CFR 372):

SECTION 313 REPORTABLE INGREDIENTS:

Chemical Name	CAS Number	Concentration (% by weight)	Reportable
Chromium	7440-47-3	0.01-1.6	Yes – Greater than 0.1%
Nickel	7440-02-0	0.01-0.1	Yes – Greater than 0.1%
Phosphorus	7723-14-0	<0.9	No – Less than 1%
Zinc	7440-66-6	0-0.01	No – Less than 1%

Concentrations based on analytical data and process knowledge of typical products distributed by the facility.

16 Other information

The contents and format of this MSDS are in accordance with EEC Commission Directive 2001/58/EC, 1999/45/EC, 1967/548/EEC.

DISCLAIMER OF LIABILITY

The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or 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 the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may be applicable.

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*****The End*****