

Material Safety Data Sheet

May be used to comply with
 OSHA's Hazard Communication Standard,
 29 CFR 1910.1200. Standard must be
 consulted for specific requirements.

U.S. Department of Labor

Occupational Safety and Health Administration
 (Non-Mandatory Form)
 Form Approved
 OMB No. 1218-0072

IDENTITY (As Used on Label and List)

Wet or Dry Silver-Zinc Battery w/Mercuric Oxide

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.

Section I*Manufacturer's Name*

Yardney Technical Products, Inc.

Emergency Telephone Number

(800) 255-3924

Address (Number, Street, City, State, and Zip Code)

2000 South County Trail

Telephone Number for Information

401-471-6580

East Greenwich, RI 02818-1530

Date Prepared

02/05/2013

*Signature of Preparer (optional)***Section II - Hazardous Ingredients/Identity Information**

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Potassium Hydroxide (Electrolyte)		2 mg/m ³ C		
Zinc (as fume)	5.0 mg/m ³			
Silver (as dust or fume)	.01 mg/m ³			
Mercuric Oxide (fume)		.025 mg/m ³	1 mg/10m ³ OSHA ceiling	

(Under normal conditions of use or service this battery does not expose the user to toxic fumes. Prior to use care must be taken filling a dry cell with electrolyte in order to avoid a severe chemical burn to expose tissue. Skin and eye protection is strongly recommended for the cell/battery fill operation.)

This product contains the following EPCRA Section 313 chemicals: Mercury, Silver, & Zinc Compounds.

Section III - Physical/Chemical Characteristics

<i>Boiling Point</i>	NA	<i>Specific Gravity (H₂O = 1)</i>	NA
<i>Vapor Pressure (mm Hg.)</i>	NA	<i>Melting Point</i>	NA
<i>Vapor Density (AIR = 1)</i>	NA	<i>Evaporation Rate (Butyl Acetate = 1)</i>	NA

Solubility in Water

NA

Appearance and Odor

No Odor

Section IV - Fire and Explosion Hazard Data

<i>Flash Point (Method Used)</i>	<i>Flammable Limits</i>	<i>LEL</i>	<i>UEL</i>
NA	NA	NA	NA

Extinguishing Media

Dry Chemical Extinguisher

Special Fire Fighting Procedures

Avoid breathing fumes, wear self contained breathing apparatus

Unusual Fire and Explosion Hazards

Intense heat and acrid smoke from burning metal and plastic components

(Reproduce locally)

OSHA 174, Sept. 1985

Section V - Reactivity Data

Stability Normally Stable	Unstable	NA	Conditions to Avoid Short circuiting positive and negative terminals.
	Stable	NA	

Incompatibility (Materials to Avoid)

Acids, Solvents

Hazardous Decomposition or Byproducts

Mercuric oxide fumes, hydrogen gas

Hazardous Polymerization	May Occur	NA	Conditions to Avoid NA
	Will Not Occur	NA	

Section VI - Health Hazard Data

Route(s) of Entry Inhalation?	Skin?	Ingestion?
X	X	X

Health Hazards (Acute and Chronic)

Potassium Hydroxide is corrosive to skin and eyes. Mercuric Oxide bio accumulates in human tissues. Silver bio accumulates in human tissue. Zinc bio accumulates in human tissue. Zinc fumes can cause respiratory distress.

Carcinogenicity:	NTP?	IARC Monographs?	OSHA Regulated?
	No	No	No

Signs and Symptoms of Exposure

To Potassium Hydroxide: Skin & eye irritation. To Silver: Argyria. To Mercuric Oxide: Loss of memory, tremors. To Zinc: Metal fume fever.

Medical Conditions

Generally Aggravated by Expos NA

Emergency and First Aid Procedures

Remove injured personnel from area immediately. Flush eyes and skin with copious amounts of water for Potassium Hydroxide involvement and seek medical attention immediately.

Section VII - Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled

Contain Potassium Hydroxide, ventilate the area. Neutralize the Potassium Hydroxide with boric acid. Do not flush to sanitary sewer, collect all spillage and debris for proper disposal.

Waste Disposal Method

Silver-zinc Cells and batteries contain RCRA regulated metals and a corrosive liquid. They should be recycled to reclaim the silver in accordance with state, and federal regulations.

Precautions to Be Taken in Handling and Storage

Avoid short circuiting terminals of wet cells and batteries. Avoid exposure to intense heat or fire. Do not open these cells and expose the internal components.

Other Precautions

Wet batteries are regulated. Proper shipping name - Batteries Wet, filled with Alkali, Hazard Class 8, UN2795,

PG III

Section VIII - Control Measures

Respiratory Protection (Specific Type)

NA

Ventilation	Local Exhaust Yes	Special
	Mechanical (General) Per ACGIH Handbook Recommendation	Other
Protective Gloves	Chemical resistant (Fill Operation)	Eye Protection Goggles

Other Protective Clothing or Equipment

Chemical Resistant Apron (Fill Operation)

Work Hygienic Practices

Wash thoroughly after working with AgZn Batteries.