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SAFETY DATA SHEET (SDS)

Articles, such as batteries, are exempt from SDS classification criteria. Therefore, this document is provided as reference information for the safe handling of the product. The information set forth herein are made in good faith and are believed to be accurate as of the date of preparation. However, Seiko Instruments Inc. makes no warranty, either express or implied, with respect to this information and disclaims all liability from reference on it.

SECTION 1: Product and Company Identification

Product Name Silver Oxide Battery (Mercury Free)

Model Name: SR Battery（0%Hg） all types
Brand: SEIZAIKEN
Nominal Voltage: 1.55 V

Manufacturer Seiko Instruments Inc. Micro-Energy Division
Address: 45-1, Aza Matsubara, Kamiayashi, Aoba-ku, Sendai-shi, Miyagi, 989-3124 Japan
Telephone: +81-22-391-9331 Fax: +81-22-391-9330

Seller Seiko Instruments Inc. Electronic Components Sales Head Office
Address: 8, Nakase 1-chome, Mihama-ku, Chiba-shi, Chiba, 261-8507 Japan
Telephone: +81-43-211-1735 Fax: +81-43-211-8034

SECTION 2: Hazards Identification

GHS Classification Not applicable

The chemical compositions are sealed inside the battery. However, if the battery is used improperly, highly alkaline electrolyte and gas will leak from the inside, and if the leaked electrolyte adheres to the skin or eye, it may cause injury such as blindness, so please strictly observe safety instructions.

Regardless of before or after use, stacking or jumbling of batteries may cause external short circuits and heating, which may lead to an explosion or fire.

SECTION 3: Composition and Information on Ingredients

Chemical Classification Article (Not Substances or Mixtures)

Main Materials and Ingredients

Part Name	Material Name	CAS No.	Content (wt%)
Anode	Zinc	7440-66-6	2 to 15
Cathode	Silver Oxide	20667-12-3	15 to 40
	Manganese Dioxide	1313-13-9	1 to 25
Electrolyte	Sodium Hydroxide	1310-73-2	3 to 10
	or Potassium Hydroxide	1310-58-3	1 to 20

Restricted substances such as mercury, lead, and cadmium are not added into this battery.

SECTION 4: First Aid Measures

In the case of a leakage (e.g. electrolyte) from the can, take the following measures:

Inhalation : Fumes can cause respiratory irritation. Remove to fresh air and seek medical treatment immediately.

Skin contact : Immediately rinse with plenty of clean water and seek medical treatment.

Eyes contact : Immediately rinse with plenty of clean water and seek medical treatment.

Ingestion : Rinse mouth with clean water and seek medical treatment immediately.

In the case of ingestion of a battery :

May lead to burns. Seek medical assistance promptly.

SECTION 5: Fire Fighting Measures

Fire extinguishing agent: Water, dry sand, and all types of fire extinguishers are effective.

In the case of a fire in the vicinity, avoid high temperatures to prevent an explosion.

SECTION 6: Accidental Release Measures

The battery is sealed to prevent leakage of gas or liquid. Should liquid leak from the battery, wipe it off with a rag and move the battery to a well-ventilated area. Should the liquid come in contact with the human body, see Section 4 First Aid Measures.

SECTION 7: Precautions During Handling and Storage

Handling

Keep out of reach of children.

Do not heat or throw into a fire.

Do not deform or disassemble.

Do not short-circuit. Do not connect wires to the terminals, stack batteries, or carry or store them with metal products such as necklaces and hairpins.

Do not connect the terminals in reverse.

Do not charge.

Do not weld or solder directly.

Do not mix old and new batteries or batteries of different types or brands.

Exhausted batteries should be immediately removed from equipment.

Do not swallow the battery. In case of ingestion of a battery, see Section 4 First Aid Measures.

Do not allow children to replace batteries without adult supervision.

Storage

Store in their original packaging to prevent short circuits.

Keep dry.

Do not store in places of the high temperature, high humidity, or under direct sunlight.

Recommended storage temperature is +10°C to +30°C, relative humidity less than 60%.

SECTION 8: Exposure Controls / Personal Protection

The battery is sealed to prevent leakage. There is no need of personal protective equipment on regular handling and storage. Should a large amount of liquid (electrolyte) leak from the batteries, wear protective equipment.

Respiratory Protection: Protective mask with a filter preferably

Protective Gloves: Safety gloves

Eye Protection: Safety goggles and/or glasses for chemicals

SECTION 9: Physical and Chemical Properties

Shape	Button battery
Chemical System	Silver Oxide / Zinc
Rechargeable	YES / (NO)

SECTION 10: Stability and Reactivity

Stability:	Stable on regular handling and storage
Condition to Avoid:	See SECTION 7

SECTION 11: Toxicological Information

There is no toxicity because the chemical compositions are sealed inside the battery.

SECTION 12: Ecological Information

It has been confirmed that there is almost no outflow of metal when exhausted batteries are landfilled in the ground. Although electrolyte may leak due to deformation or corrosion of the case, heavy metals such as mercury, lead, and cadmium are not used in this battery. There is no other environmental impact information.

SECTION 13: Disposal Considerations

When disposing of this battery, insulate the terminals with tape or other means before disposal to prevent a short circuit due to contact between the battery and metal.

Dispose in accordance with applicable federal, state, and local regulations.

SECTION 14: Transport Information

Our silver oxide battery is not classified dangerous goods by International Air Transport Association (IATA), International Civil Aviation Organization (ICAO), U.S. Department of Transportation (DOT), International Maritime Organization (IMO).
It is not classified as a hazardous material under the current edition of the IATA Dangerous Goods Regulations (67th edition). It also complies with the special provision A123 and therefore, it can be transported usually by aircraft, ship, vehicle and railway as normal cargo.

Avoid transportations that may heat cargoes to high temperatures, wet cargoes, cause condensation, or damage cargoes.

SECTION 15: Regulatory Information

・EU Battery Regulation:Regulation(EU)2023/1542

SECTION 16: Other Information

None

End of Documents.