

# NEXcell Battery Co., LTD.

## Material Safety Data Sheet

### SR SERIES

Model No. SR41 SR43 SR44 SR45 SR48 SR54 SR55 SR57 SR58 SR59 SR60  
SR62 SR 63 SR64 SR65 SR66 SR67 SR68 SR69

Note: Blank spaces are not permitted if any item is not applicable or information is available, the space must be marked to indicate That.

### Section II-Hazardous ingredients/ Identity information

Hazardous Components (Specific Chemical Identity, Common Names)	(contents, %/wt)	CAS No.
Silver Oxide (Ag <sub>2</sub> O)	10.24 %	20667-12-3
Manganese Dioxide (MnO <sub>2</sub> )	21.15 %	1313-13-9
Zinc (Zn)	11.26 %	7440-66-6
Potassium Hydroxide (KOH)	2.95 %	1310-58-3
Graphite (C)	2.73 %	7782-42-5
Mercury (Hg)	≤2.00%	7439-97-6
Lead (Pb)	≤0.40 %	7439-92-1

IMPORTANT NOTE: The battery should not be opened or burned. Exposure to the ingredients contained within or their combustion products could be harmful.

### Section III- Physical / Chemical Characteristics

Boiling Point N.A. Specific Gravity (H<sub>2</sub>O=1) N.A

Vapor Pressure ( mm Hg)

N.A. Melting Point

N.A.

Vapor Density (Air=1)

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N.A. Evaporation Rate (Buty Acetate)

N.A.

Solubility in Water

N.A.

Appearance and Odor

Button or cylindrical shape, odorless

Section IV-Hazard Classification

## FIRE AND EXPLOSION HAZARD DATA

In case of fire, it is permissible to use any class of extinguishing medium on these batteries or their packing material. Cool exterior of batteries if exposed to fire to prevent rupture.

Fire fighters should wear self-contained breathing apparatus.

## HEALTH HAZARD DATA

Under normal conditions of use, the battery is hermetically sealed.

**Ingestion:** Swallowing a battery can be harmful.

Contents of an open battery can cause serious chemical burns of mouth, esophagus, and gastrointestinal tract. If battery or open battery is ingested, do not induce vomiting or give food or drink. Seek medical attention immediately.

**Inhalation:** Contents of an open battery can cause respiratory irritation. Provide fresh air and seek medical attention.

**Skin Absorption:** Mercury can be absorbed through intact skin causing symptoms similar to those of ingestion.

**Skin Contact:** Contents of an open battery can cause skin irritation and/or chemical burns. Remove contaminated clothing and wash skin with soap and water. If a chemical burn occurs or if irritation persists, seek medical attention.

**Eye Contact:** Contents of an open battery can cause severe irritation and chemical burns. Immediately flush eyes thoroughly with water for at least 15 minutes, lifting upper and lower lids, until no evidence of the chemical remains. Seek medical attention.

## PRECAUTIONS FOR SAFE HANDLING AND USE

**Storage:** Store in a cool, well ventilated area. Elevated temperatures can result in shortened battery life.

**Mechanical Containment:** Batteries normally evolve hydrogen which, when combined with oxygen from the air, can produce a combustible or explosive mixture unless vented. If such a mixture is present, short circuits, high temperature, or static sparks can cause an ignition.

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Do not obstruct safety release vents on batteries. Encapsulation (potting) of batteries will not allow cell venting and can cause high pressure rupture.

**Handling:** Accidental short circuit for a few seconds will not seriously affect the battery. Prolonged short circuit will cause the battery to lose energy, and can cause the safety release vent to open. Sources of short circuits include jumbled batteries in bulk containers, metal jewelry, metal covered tables or metal belts used for assembly of batteries into devices.

**Charging:** This battery is manufactured in a charged state. It is not designed for recharging. Recharging can cause battery leakage or, in some cases, high pressure rupture. Inadvertent charging can occur if a battery is installed backwards.

<b>FIRST AID MEASURES</b>
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If electrolyte leakage occurs and makes contact with skin, wash with plenty of water immediately.

If electrolyte comes into contact with eyes, wash with copious amounts of water for fifteen (15) minutes, and contact a physician.

If electrolyte vapors are inhaled, provide fresh air and seek medical attention if respiratory irritation develops. Ventilate the contaminated area.

<b>SPECIAL PROTECTION INFORMATION</b>
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**Ventilation Requirements:** Not necessary under normal conditions.

**Respiratory Protection:** Not necessary under normal conditions.

**Eye Protection:** Not necessary under normal conditions. Wear safety glasses with side shields if handling an open or leaking battery.

**Gloves:** Not necessary under normal conditions. Use neoprene or natural rubber gloves if handling an open or leaking battery.