# MSDS Report

**Samples:** Rechargeable Li-ion Battery QG50

**Supplier Unit:** SUNWODA ELECTRONIC CO., LTD.

**Supplier Address:** No.2,Yihe Rd,Shilong Community,Shiyan Street,Baoan District, Shenzhen City,China

**MSDS No.:** MSDS20240101052

**Release Date:** Jan 01 2024


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TEL：86-755-29516888 FAX：86-755-29516999

# Material Safety Data Sheet

## Section 1 – Chemical Product and Company Identification

**Product Name: Rechargeable Li-ion Battery**

**Sample Code: QG50**

**Equivalent lithium content：2.0g**

**Approximate Weight：62.6g**

**Manufacturer: SUNWODA ELECTRONIC CO., LTD**

**Address: No.2,Yihe Rd, Shilong Community, Shiyan Street, Baoan District, Shenzhen City,China**

**Post Code: 518108**

**Tel: 0755-29516888**

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**Fax: 0755-29516999**

**E-mail:luoxiaozhi@sunwoda.com**

## Section 2 –Hazards Identification

**Health Hazards (Acute and Chronic)**

These chemicals are contained in a sealed can .Risk of exposure occurs only if the battery is mechanically or electrically abused. Contact of electrolyte and extruded lithium with skin and eyes should be avoided.

**Sign/Symptoms of Exposure**

A shorted lithium battery can cause thermal and chemical burns upon contact with the skin. May be a reproductive hazard .

## Section 3 – Composition/Information on Ingredient

| Hazardous Ingredients | % | CAS Number |
|---|---|---|
| Aluminum Foil | 2-10 | 7429-90-5 |
| Ithium Cobalt Oxide (propietary) | 20-50 | 12190-79-3 |
| Polyvinylidene Fluoride (PVDF) | <5 | 24937-79-9 |
| Styrene Butadiene Rubber(SBR) | <5 | 9003-55-8 |
| Copper Foil | 2-10 | 7440-50-8 |
| Carbon (proprietary) | 10-30 | 7440-44-0 |
| Electrolyte (proprietary) | 10-20 | 21324-40-3 |
| Aluminum flim、 Aluminum tab、Nickel tab and inert materials | Remainder | N/A |

## Section 4 – First Aid Measures

**Eyes**

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

**Skin**

Remove contaminated clothes and rinse skin with plenty of water of shower for 15 minutes. Get medical aid.

**Inhalation**

Remove from exposure and move to fresh air immediately. Use oxygen if available.

**Ingestion**

Give at least 2 glasses of milk or water. Induce vomiting unless patient is unconscious. Call a physician.

## Section 5 – Fire Fighting Measures

**Flash Point:** N/A

**Auto-Ignition Temperature:** N/A

**Extinguishing Media:** Dry powder, $CO_2$

**Special Fire-Fighting Procedures:** Self -contained breathing apparatus.

**Unusual Fire and Explosion Hazards:** Cell may vent when subjected to excessive heat-exposing battery contents.

**Hazardous Combustion Products:** Carbon monoxide, carbon dioxide, lithium oxide fumes.

## Section 6 – Accidental Release Measures

**Steps to be Taken in case Material is Released of Spilled**

If the battery material is released, remove personnel from area until fumes dissipate. Provide maximum ventilation to clear out hazardous gases. Wipe it up with a cloth, and dispose of it in a plastic bag and put into a steel can.

The preferred response is to leave the area and allow the batteries to cool and vapors to dissipate. Provide maximum ventilation. Avoid skin and eye contact or inhalation of vapors. Remove spilled liquid with absorbent and incinerate.

**Waste Disposal Method**

It is recommended to discharge the battery to the end, handing in the abandoned batteries to related department unified, dispose of the batteries in accordance with approved local, state, and federal requirements. Consult state environmental protection agency and/or federal EPA.

## Section 7 –Handling and Storage

The batteries should not be opened, destroyed or incinerate, since they may leak or rupture and release to the environment the ingredients that they contain in the hermetically sealed container. Do not short circuit terminals, or over charge the battery, forced over-discharge, throw to fire. Do not crush or puncture the battery, or immerse in liquids.

**Precautions to be taken in handling and storing**

Avoid mechanical or electrical abuse. Storage preferably in cool, dry and ventilated area, which is subject to little temperature change .Storage at high temperatures should be avoided. Do not place the battery near heating equipment, nor expose to direct sunlight for long periods.

**Other Precautions**

Batteries may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity.

## Section 8 –Exposure Controls, Personal Protection

**Respiratory Protection**

In case of battery venting, provide as much ventilation as possible. Avoid confined areas with venting batteries. Respiratory Protection is not necessary under conditions of normal use.

**Ventilation**

Not necessary under conditions of normal use.

**Protective Gloves**

Not necessary under conditions of normal use.

**Other Protective Clothing or Equipment**

Not necessary under conditions of normal use.

Protection, Protective Gloves, Protective Clothing and safety glass with side shields .

## Section 9 –Physical and Chemical Properties

**Nominal Voltage: 3.91V**

**Rated Capacity:4850 mAh**

**Appearance characters:** odorless, solid battery.

## Section 10 –Stability and Reactivity

**Stability**

Stable

**Conditions to Avoid**

Heating, mechanical abuse and electrical abuse.

**Hazardous Decomposition Products**

N/A .

**Hazardous Polymerization**

N/A.

If leaked , forbidden to contact with strong oxidizers, mineral acids, strong alkalis, halogenated hydrocarbons.

## Section 11 –Toxicological Information

Inhalation, skin contact and eye contact are possible when the battery is opened.

Exposure to internal contents, the corrosive fumes will be very irritating to skin, eyes and mucous membranes. Overexposure can cause symptoms of non-fibrosis lung injury and membrane irritation.

## Section 12 –Ecological Information

When promptly used or disposed the battery does not present environmental hazard. When disposed, keep away from water, rain and snow.

## Section 13 –Disposal Considerations

**APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARTION**

If batteries are still fully charged or only partially discharged, they can be considered a reactive hazardous waste because of significant amount of not creation, or unconsumed lithium remaining in the spent battery. The batteries must be neutralized through an approved secondary treatment facility prior to disposal as a hazardous waste. Recycling of battery can be done in authorized facility, through licensed waste carrier.

## Section 14 –Transport Information

**General packaging requirement：**

1. The cells or batteries must be protected so as to prevent short circuits.
2. The cells or batteries or equipment must be packed in suitable strong outer packaging.
3. If batteries contained in equipment, equipment must be secured against movement within the outer.
   packaging and be packed so as to prevent accidental activation.

| | |
|---|---|
| **PROPER SHIPPING NAME:** Lithium-ion batteries<br>**Transport Fashion:** by air or by sea | |
| **Air transportation, according to IATA-DGR 65th Edition (Effective 1 January-31December 2024)** | |
| **UN Number + PSN** | **UN 3480, LITHIUM ION BATTERIES** |
| **Hazard Class** | CLASS 9 |
| **Packaging requirement** | Strong package, packaging according to PACKING INSTRUCTION 965, section IB |
| **UN Number + PSN** | **UN 3481, LITHIUM ION BATTERIES PACKED WITH EQUIPMENT** |
| **Hazard Class** | Not restricted |
| **Packaging requirement** | Strong package, packaging according to packing instruction 966, section II |
| **UN Number + PSN** | **UN 3481, LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT** |
| **Hazard Class** | Not restricted |
| **Packaging requirement** | Strong package, packaging according to packing instruction 967, section II |
| **Sea transportation, according to IMO IMDG Code (Amend 41-2022)** | |
| **UN Number + PSN** | **UN 3480, LITHIUM ION BATTERIES, or<br>UN 3481, LITHIUM ION BATTERIES PACKED WITH EQUIPMENT** |
| **Hazard Class** | Not restricted, according to sp188 |
| **Package instruction** | Strong package. Packaging in accordance to corresponding requirements of sp188 |
| **EmS No** | F-A.S-I |
| **Road transportation, according to ADR-2023** | |
| **UN Number + PSN** | **UN 3480, LITHIUM ION BATTERIES, or<br>UN 3481, LITHIUM ION BATTERIES PACKED WITH EQUIPMENT, Or<br>UN 3481, LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT** |
| **Hazard Class** | Not restricted, according to sp188 |

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| | |
|---|---|
| **Package instruction** | Strong package, Packaging in accordance to corresponding requirements of sp188 |
| **EmS No** | F-A.S-I |

## Section 15 –Regulatory Information

**Law Information**

《Dangerous Goods Regulation》
《Recommendations on the Transport of Dangerous Goods Model Regulations》
《International Maritime Dangerous Goods》
《Technical Instructions for the Safe Transport of Dangerous Goods》
《Occupational Safety and Health Act》(OSHA)
《Toxic Substances Control Act》(TSCA)
《Superfund Amendments and Reauthorization Act Title III (302/311/312/313)》(SARA)
《California Proposition 65》
《Code of Federal Regulations》(CFR)
《Globally Harmonized System of Classification and Labeling of Chemicals》(GHS)
In accordance with all Federal, State and Local laws .

## Section 16 –Additional Information

The above information is based on the data of which we are aware and is believed to be correct as of the data hereof .Since this in formation may be applied under conditions beyond our control and with which may be unfamiliar and since data made available subsequent to the data hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material of his particular purpose.