MSDS Report

Samples: Reachargeable Li-ion Polymer Battery BN56

Supplier Unit: SUNWODA ELECTRONIC CO., LTD.

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

MSDS No.: MSDS202004003

Release Date: Apr 02 2020

欣旺达电子股份有限公司
业务专用章

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Material Safety Date Sheet

Section 1 – Chemical Product and Company Identification

Product Name: Rechargeable Li-ion Polymer Battery

Sample Code: BN56

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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E-mail:wangwan@sunwoda.com

Section 2 – 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 3 –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 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: 3.85V

Rated Capacity: 4900mAh

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

The battery models listed have a Watt-hour rating of no more than 100Wh.And shipment contains no item listed under IATA DGR Special Provision A154 and meets all requirements under UN Manual of Tests and Criteria Part III, subsection 38.3.

No	ITEMS	RESULT	REMARKS
1	Altitude simulation	Pass	Test1 to 5 must be conducted in sequence on the same cell or battery
2	Thermal test	Pass	
3	Vibration	Pass	
4	Shock	Pass	
5	External short circuit	Pass	

6	Impact	Pass	
7	Overcharge	Pass	Only battery do need this test item
8	Forced discharge	Pass	

Each package is capable of withstanding a 1.2m drop test in any orientation without damage to cells or batteries contained therein, without shifting of the contents so as to allow battery to battery (or cell to cell) contact and without release of contents. Package does not exceed 10kg gross mass.

Packaging complies with the requirements of section II or section IB of Packing Instructions 965 and section II of Packing Instructions 965 or 967 of 61st DGR Manual of IATA

The article is not restricted to IMO IMDG Code according to special provision 188.

The goods are packaged according to the packaging requirement of ordinary goods.

More information concerning shipping, testing, marking and packaging can be obtained from Label master at http://www.labelmaster.com.

Separate battery when shipping to prevent short-circuiting. They should be packed in strong packaging for support during transport. Take in a cargo of them without falling, dropping, and breakage. Prevent collapse of cargo piles and wet by rain.

Transport Fashion: by air or by sea.

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》
《Classification and code of dangerous goods》
《Occupational Safety and Health Act》(OSHA)
《Toxic Substances Control Act》(TSCA)
《Consumer Product Safety Act》(CPSA)
《Federal Environmental Pollution Control Act》(FEPCA)
《The Oil Pollution Act》(OPA)
《Superfund Amendments and Reauthorization Act Title III (302/311/312/313)》(SARA)
《Resource Conservation and Recovery Act》(RCRA)
《Safety Drinking Water Act》(CWA)
《California Proposition 65》
《Code of Federal Regulations》(CFR)

In accordance with all Federal, State and Local laws .

Section 16 –Additional Information

The above information is based on the date 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.