

## Material Safety Data Sheet

Client	Dongguan Prestige Sporting Goods Co., Ltd
Add. of Client	3rd Industrial District, Qiaotou Area, Houjie Town, Dongguan City, Guangdong Province, China
Description	Lithium Battery
Model /Type	WX-25.210-A1
Manufacturer	Shenzhen zhuoneng New Energy Co., Ltd.
Add. of Manufacturer	No.6 Fuping Middle Road, Pingdi Longgang China
Nominal Voltage	25.2V
Typical Capacity	10Ah
Wh rating	252Wh
Date of Receipt	2021-01-04

Laboratory	Dongguan ZRLK Testing Technology Co., Ltd.
Address	Building D, No.2, Jinyuyuan Mansion, No.18, Industrial West Road, Songshan Lake High-tech Industrial Development Zone, Dongguan, Guangdong, China

Approved Signatory	Barry Peng
Inspected by	Ailis.Ma
Censored by	Lahm Peng

*Barry Peng*  
*Ailis Ma*  
*Lahm Peng*





## Section 1- Chemical Product and Company Identification

### 1. Chemical Product Identification

Product name: Lithium Battery

Model: WX-25.210-A1

### 2. Company Identification

Manufacturer /Supplier Name: Shenzhen zhuoneng New Energy Co., Ltd.

Address: No.6 Fuping Middle Road, Pingdi Longgang China

Telephone number of the supplier:0086-18676393730

Emergency Telephone No.(24h):0086-18676393730

E-mail address: pengyong@szznp.com

This MSDS was prepared by Dongguan ZRLK Testing Technology Co., Ltd.

Referenced documents: ISO 11014:2009 Safety data sheet for chemical products;

## Section 2 – Hazards Identification

Preparation hazards and classification	When the battery is In extreme pressure deformation, high-temperature environment, overload, short-circuit condition, or disassemble the battery, an explosion of fire and chemical burn hazards may occur.
Apperance, Color, and Odor	Solid object with no odor, no color.
Primary Route(s) of Exposure	These chemicals are contained in a sealed stainless steel enclosure. Risk of exposure occurs only if the cell is mechanically, thermally or electrically abused to the point of compromising the enclosure. If this occurs, exposure to the electrolyte solution contained within can occur by Inhalation, Ingestion, Eye contact and Skin contact
Potential Health Effects:	<b>ACUTE (short term):</b> see Section 8 for exposure controls In the event that this battery has been ruptured, the electrolyte solution contained within the battery would be corrosive and can cause burns. <b>Inhalation:</b> A battery volatilizes no gas unless it was damaged. Damaged battery will volatilize little gas that may stimulate the respiratory tract or cause an anaphylaxis in serious condition. <b>Ingestion:</b> Swallowing battery will be Damaged to the respiratory tract and Cause chemical burns to the stomach; in serious conditions it will cause Permanent damage. <b>Skin:</b> In normal condition, contact between the battery and skin will not cause any harms. Contact with a damaged battery may cause skin allergies or chemical burns. <b>Eye:</b> in normal condition, contact between the battery and eyes will not cause any harms. However, the gas Volatilize from a damaged battery may be harmful to eyes. <b>CHRONIC (long term):</b> see Section 11 for additional toxicological data
Medical Conditions Aggravated by Exposure	Not applicable
Reported as carcinogen	Not applicable



### Section 3 – Composition/Information on Ingredients

Lithium Battery is a mixture.

Common Chemical Name	Concentration (%)	CAS Number
Li(NiCoMn)O <sub>2</sub>	25-35	113066-89-0
Graphite(C)	15-20	7782-42-5
Poly Vinylidene Fluoride(PVDF)	1-5	24937-79-9
Acetylene Black	0.5-3	1333-86-4
Aluminium (AL)	21-23	7429-90-5
Copper(Cu)	10-11	7440-50-8
Electrolyte	10-15	623-53-0/21324-40-3

Note: CAS number is Chemical Abstract Service Registry Number.

N/A=Not apply.

(\*)Main ingredients: Lithium hexafluorophosphate, organic carbonates

### Section 4 – First-aid Measures

<b>Inhalation</b>	If contents of an opened battery are inhaled, remove source of contamination or move victim to fresh air. Obtain medical advice.
<b>Skin contact</b>	If skin contact with contents of an open battery occurs, as quickly as possible remove contaminated clothing, shoes and leather goods. Immediately flush with lukewarm, gently flowing water for at least 30 minutes. If irritation or pain persists, seek medical attention. Completely decontaminate clothing, shoes and leather goods before reuse or discard.
<b>Eye contact</b>	If eye contact with contents of an open battery occurs, immediately flush the contaminated eye(s) with lukewarm, gently flowing water for at least 30 minutes while holding the eyelids open. Neutral saline solution may be used as soon as it is available. If necessary, continue flushing during transport to emergency care facility. Take care not to rinse contaminated water into the unaffected eye or onto face. Quickly transport victim to an emergency care facility.
<b>Ingestion</b>	If ingestion of contents of an open battery occurs, never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Have victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITING. Have victim drink 60 to 240 mL (2-8 oz.) of water. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Have victim rinse mouth with water again. Quickly transport victim to an emergency care facility.

### Section 5 – Fire-fighting Measures



Flammable Properties	In the event that this battery has been ruptured, the electrolyte solution contain within the battery would be flammable. Like any sealed container, battery cells may rupture when exposed to excessive heat; this could result in the release of flammable or corrosive materials.
Suitable extinguishing Media	Use extinguishing media suitable for the materials that are burning.
Unsuitable extinguishing Media	Not available
Explosion Data	<b>Sensitivity to Mechanical Impact:</b> This may result in rupture in extreme cases <b>Sensitivity to Static Discharge:</b> Not Applicable
Specific Hazards arising from the chemical	Fires involving <b>Lithium Battery</b> can be controlled with water. When water is used, however, hydrogen gas may evolve. In a confined space, hydrogen gas can form an explosive mixture. In this situation, smothering agents are recommended to extinguish the fire
Protective Equipment and precautions for firefighters	As for any fire, evacuate the area and fight the fire from a safe distance. Wear a pressure-demand, self-contained breathing apparatus and full protective gear. Fight fire from a protected location or a safe distance. Use NIOSH/MSHA approved full-face self-contained breathing apparatus (SCBA) with full protective gear.
NFPA	Health: 0 Flammability: 0 Instability: 0

## Section 6 – Accidental Release Measures

Personal Precautions, protective equipment, and emergency procedures	Restrict access to area until completion of clean-up. Do not touch the spilled material. Wear adequate personal protective equipment as indicated in Section 8.
Environmental Precautions	Prevent material from contaminating soil and from entering sewers or waterways.
Methods and materials for Containment	Stop the leak if safe to do so. Contain the spilled liquid with dry sand or earth. Clean up spills immediately.
Methods and materials for cleaning up	Absorb spilled material with an inert absorbent (dry sand or earth). Scoop contaminated absorbent into an acceptable waste container. Collect all contaminated absorbent and dispose of according to directions in Section 13. Scrub the area with detergent and water; collect all contaminated wash water for proper disposal.

## Section 7 – Handling and Storage

<p>Handling</p>	<p>Do not dismantle, open or shred secondary <b>Lithium Battery</b>;</p> <p>Don't handling Lithium Battery with metalwork. Do not open, dissemble, crush or burn battery. Ensure good ventilation/ exhaustion at the workplace.</p> <p>Prevent formation of dust.</p> <p>Information about protection against explosions and fires: Keep ignition sources away- Do not smoke.</p>
<p>Storage</p>	<p>If the <b>Lithium Battery</b> is subject to storage for such a long term as more than 3 months, it is recommended to recharge the <b>Lithium Battery</b> periodically.</p> <p>3 months: -10°C~+40°C, 45 to 85%RH</p> <p>And recommended at 0°C~+35°C for long period storage.</p> <p>The capacity recovery rate in the delivery state (50% capacity of fully charged) after storage is assumed to be 80% or more.</p> <p>Do not storage <b>Lithium Battery</b> haphazardly in a box or drawer where they may short-circuit each other or be short-circuited by other metal objects.</p> <p>Keep out of reach of children.</p> <p>Do not expose <b>Lithium Battery</b> to heat or fire. Avoid storage in direct sunlight.</p> <p>Do not store together with oxidizing and acidic materials.</p>

## Section 8 – Exposure Controls and Personal Protection

<p>Engineering Controls</p>	<p>Use local exhaust ventilation or other engineering controls to control sources of dust, mist, fumes and vapor.</p> <p>Keep away from heat and open flame. Store in a cool, dry place.</p>
<p>Personal Protective Equipment</p>	<p><b>Respiratory Protection:</b> Not necessary under normal conditions.</p> <p><b>Skin and body Protection:</b> Not necessary under normal conditions, Wear neoprene or nitrile rubber gloves if handling an open or leaking battery.</p> <p><b>Hand protection:</b> Wear neoprene or natural rubber material gloves if handling an open or leaking</p>



	battery. <b>Eye Protection:</b> Not necessary under normal conditions, Wear safety glasses if handling an open or leaking battery.
Other Protective Equipment	Have a safety shower and eye wash fountain readily available in the immediate work area.
Hygiene Measures	Do not eat, drink, or smoke in work area. Maintain good housekeeping.

## Section 9 - Physical and Chemical Properties

Physical State	Form: Prismatic
	Odour: Monotony
Change in condition:	
pH, with indication of the concentration	Not applicable
Melting point/freezing point	Not available.
Boiling Point, initial boiling point and Boiling range:	Not available.
Flash Point	Not available.
Upper/lower flammability or explosive limits	Not available.
Vapor Pressure:	Not applicable
Vapor Density: (Air = 1)	Not applicable
Density/relative density	Not available.
Solubility in Water:	Insoluble
n-octanol/water partition coefficient	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Odour threshold	Not available.
Evaporation rate	Not available.
Flammability (soil, gas)	Not available.
Viscosity	Not applicable

## Section 10 - Stability and Reactivity

Stability	The product is stable under normal conditions.
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Conditions to Avoid (e.g. static discharge, shock or vibration)	Do not subject <b>Lithium Battery</b> to mechanical shock. Vibration encountered during transportation does not cause leakage, fire or explosion. Do not disassemble, crush, short or install with incorrect polarity. Avoid mechanical or electrical abuse.
Incompatible Materials	Not Available
Hazardous Decomposition Products	This material may release toxic fumes if burned or exposed to fire
Possibility of Hazardous Reaction	Not Available

## Section 11 - Toxicological Information

In normal condition, contact with the battery is non-toxic.

## Section 12 - Ecological Information

General note:	Water hazard class 1(Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Anticipated behavior of a chemical product in environment/possible environmental impact/ecotoxicity.	Not Available
Mobility in soil	Not Available
Persistence and Degradability	Not Available
Bioaccumulation potential	Not Available
Other Adverse Effects	Not Available

## Section 13 – Disposal Considerations

Product disposal recommendation: Observe local, state and federal laws and regulations.

Packaging disposal recommendation: Be aware discarded batteries may cause fire, tape the battery terminals to insulate them. Don't disassembly the battery. Completely discharge containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used. Observe local, state and federal laws and regulations.

The potential effects on the environment and human health of the substances used in batteries and accumulators; the desirability of not disposing of waste batteries and accumulators as unsorted municipal waste and of participating in their separate collection so as to facilitate treatment and recycling;







*Material Safety Data Sheet*

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