# **SAFETY DATA SHEET**

Date of issue 01-14-2021 Canada/English

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# 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name Lithium-ion Rechargeable Cell FY INR18650-2200mAh

Other means of identification

Recommended use of the chemical and restrictions on use

Recommended Use LITHIUM ION BATTERIES

Uses advised against No information available

Details of the supplier of the safety data sheet

Initial supplier identifier Jiangxi Feiyang new energy co., ltd.

Address Xiacun industrial base, yushui district, xinyu city, Jiangxi province

**Telephone** +86 18979005956

E-mail xiaowei32805@163.com

Emergency telephone number

Company Emergency Phone Number +86 18979005956

# 2. HAZARDS IDENTIFICATION

# Classification

This is a battery. In case of rupture:.

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Carcinogenicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 1

# GHS Label elements, including precautionary statements

# **Danger**

#### **Hazard statements**

This is a battery. In case of rupture:.

Causes skin irritation Causes serious eye irritation Suspected of causing cancer

Causes damage to organs through prolonged or repeated exposure



# **Precautionary Statements - Prevention**

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood Wear protective gloves/protective clothing/eye protection/face protection Wash face, hands and any exposed skin thoroughly after handling

Do not breathe dust/fume/gas/mist/vapors/spray

Do not eat, drink or smoke when using this product

### **Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention Specific treatment (see supplemental first aid instructions on this label)

#### Eves

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing If eye irritation persists: Get medical advice/attention

#### Skin

IF ON SKIN: Wash with plenty of water and soap If skin irritation occurs: Get medical advice/attention Take off contaminated clothing and wash it before reuse

# **Precautionary Statements - Storage**

Store locked up

# **Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

# Other information

Very toxic to aquatic life with long lasting effects

### Unknown acute toxicity

30.9 % of the mixture consists of ingredient(s) of unknown toxicity

30.9 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

30.9 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

30.9 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

30.9 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)

30.9 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

# 3. COMPOSITION/INFORMATION ON INGREDIENTS

# <u>Substance</u>

Not applicable.

### **Mixture**

Chemical name	CAS-No	Percent (%)	Hazardous Material	Date HMIRA filed and

			Information Review Act registry number (HMIRA registry #)	date exemption granted (if applicable)
Cobalt lithium manganese nickel oxide	346417-97-8	45	registry #)	-
Lithium manganese oxide (LiMn2O4)	12057-17-9	29.8	-	-
Carbon	7440-44-0	18	-	-
Phosphate(1-), hexafluoro-, lithium	21324-40-3	2	-	-
Acetylene Black	1333-86-4	0.2	-	-
PVDF	24937-79-9	0.8	-	-
SBR	9003-55-8	0.5	-	-
Aluminum	7429-90-5	3.5	-	-
Nickel	7440-02-0	0.2	-	-

### 4. FIRST AID MEASURES

First aid measures

General advice First aid is upon rupture of sealed battery. IF exposed or concerned: Get medical

advice/attention. Show this safety data sheet to the doctor in attendance.

**Inhalation** Remove to fresh air. Get medical attention immediately if symptoms occur.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15

minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and

persists. Do not rub affected area.

**Skin contact** Wash off immediately with soap and plenty of water for at least 15 minutes. Get

medical attention if irritation develops and persists.

Ingestion Clean mouth with water and drink afterwards plenty of water. Never give anything

by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.

Self-protection of the first aider

Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see

section 8).

Most important symptoms and effects, both acute and delayed

**Symptoms** Burning sensation.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the

surrounding environment.

Unsuitable extinguishing media CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical No information available.

Hazardous Combustion Products Carbon oxides.

**Explosion Data** 

Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

### 6. ACCIDENTAL RELEASE MEASURES

#### Personal precautions, protective equipment and emergency procedures

**Personal precautions**Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use

personal protective equipment as required. Evacuate personnel to safe areas.

Other Information Refer to protective measures listed in Sections 7 and 8.

Environmental precautions

**Environmental precautions** Prevent further leakage or spillage if safe to do so.

Methods and material for containment and cleaning up

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental

regulations.

# 7. HANDLING AND STORAGE

#### Precautions for safe handling

Advice on safe handling In case of rupture: Handle in accordance with good industrial hygiene and safety

practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Do not eat, drink or smoke when using this product. Take off contaminated clothing and

wash before reuse.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

# 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Control parameters

**Exposure Limits**The following ingredients are the only ingredients of the product above the cut-off

level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents

have no known exposure limits from the sources listed here.

Other Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965

F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering controls Showers

Eyewash stations Ventilation systems.

### Individual protection measures, such as personal protective equipment

**Eye/face protection** If splashes are likely to occur, wear safety glasses with side-shields.

**Hand protection** Wear suitable gloves. Impervious gloves.

**Skin and body protection** Wear suitable protective clothing. Long sleeved clothing.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits

are exceeded or irritation is experienced, ventilation and evacuation may be

required.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice. Do not eat,

drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face

protection. Avoid contact with skin, eyes or clothing.

# 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Physical state Solid

AppearanceNo information availableOdorNo information availableColorNo information availableOdor ThresholdNo information available

Property Values Remarks Method No data available None known Melting / freezing point No data available None known Boiling point / boiling range No data available None known **Flash Point** No data available None known **Evaporation Rate** No data available None known Flammability (solid, gas) No data available None known Flammability Limit in Air None known

Upper flammability limit No data available

Lower flammability limit No data available

Vapor pressureNo data availableNone knownVapor densityNo data availableNone knownRelative densityNo data availableNone known

Water Solubility Insoluble in water

Solubility(ies) No data available None known

Partition coefficient: n-octanol/water0

Autoignition temperatureNo data availableNone knownDecomposition temperatureNo data availableNone knownKinematic viscosityNo data availableNone knownDynamic viscosityNo data availableNone known

**Explosive properties**No information available. **Oxidizing properties**No information available.

Other Information

Softening Point
Molecular Weight
VOC Content (%)
Liquid Density

No information available
No information available
No information available
No information available

Bulk DensityNo information availableParticle SizeNo information availableParticle Size DistributionNo information available

# 10. STABILITY AND REACTIVITY

**Reactivity** No information available.

**Chemical stability** Stable under normal conditions.

**Possibility of Hazardous Reactions** None under normal processing.

Hazardous Polymerization Hazardous polymerization does not occur.

**Conditions to avoid**None known based on information supplied.

**Incompatible materials** Strong acids. Strong bases. Strong oxidizing agents.

Hazardous Decomposition Products Carbon oxides.

# 11. TOXICOLOGICAL INFORMATION

#### Information on likely routes of exposure

Product Information Product does not present an acute toxicity hazard based on known or supplied

information In case of rupture:

**Inhalation** Specific test data for the substance or mixture is not available. May cause irritation

of respiratory tract.

Eye contact Specific test data for the substance or mixture is not available. Causes serious eye

irritation. (based on components). Irritating to eyes.

**Skin contact** Specific test data for the substance or mixture is not available. Causes skin

irritation. (based on components).

**Ingestion** Specific test data for the substance or mixture is not available. Ingestion may cause

gastrointestinal irritation, nausea, vomiting and diarrhea.

Information on toxicological effects

**Symptoms** Redness. May cause redness and tearing of the eyes.

# Numerical measures of toxicity

**Acute Toxicity** 

The following values are calculated based on chapter 3.1 of the GHS document ...

**ATEmix (oral)** 12,452.00 mg/kg **ATEmix (dermal)** 9,132.00 mg/kg

Unknown acute toxicity 30.9 % of the mixture consists of ingredient(s) of unknown toxicity

 $30.9\ \%$  of the mixture consists of ingredient(s) of unknown acute oral toxicity

30.9 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

30.9 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas) 30.9 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)

30.9 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

### **Component Information**

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Classification based on data available for ingredients. Irritating to skin.

Serious eye damage/eye irritation Classification based on data available for ingredients. Irritating to eyes.

**Respiratory or skin sensitization**No information available.

**Germ cell mutagenicity**No information available.

Carcinogenicity Classification based on data available for ingredients. Contains a known or

suspected carcinogen.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Legend

**ACGIH (American Conference of Governmental Industrial Hygienists)** 

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Group 2B - Possibly Carcinogenic to Humans

NTP (National Toxicology Program)

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Reproductive toxicity No information available.

**STOT - single exposure**No information available.

**STOT - repeated exposure**Causes damage to organs through prolonged or repeated exposure.

**Aspiration hazard** No information available.

# 12. ECOLOGICAL INFORMATION

**Ecotoxicity** Very toxic to aquatic life with long lasting effects.

Persistence and Degradability No information available.

Bioaccumulation

**Component Information** 

**Mobility** No information available.

Other adverse effects No information available.

### 13. DISPOSAL CONSIDERATIONS

# Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance

with environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

# 14. TRANSPORT INFORMATION

**Note:** The transportation of primary lithium cells and batteries is regulated by the

International Civil Aviation Organization, International Air Transport Association, International Maritime Dangerous Goods Code and the US Department of Transportation. The batteries must meet the following criteria for shipment: 1. Air shipments must meet the requirements listed in Special Provision A45 of the International Air Transport Association Dangerous Goods Regulations. 2. Meet the requirements for the US Department of Transportation listed in 49 CFR 173.185. 3. The transport of primary lithium batteries is prohibited aboard passenger aircraft. Refer to the Federal Register December 15, 2004 (Hazardous

passenger aircraft. Refer to the Federal Register December 15, 2004 (Hazardous Materials; Prohibited on the Transportation of Primary Lithium Batteries and Cells Aboard Passenger Aircraft; Final Rule)

Lithium batteries shipped as "Lithium batteries", "Lithium batteries packed with equipment", or "Lithium batteries contained in equipment" may not be classified as "Dangerous Goods" when shipped in accordance with "special provision A45 of

IATA-DGR" or "special provision 188 of IMO-IMDG Code"

TDG Not regulated

Proper Shipping Name

NOT REGULATED

NON-REGULATED

Proper Shipping Name
NON-REGULATED

Hazard Class N/A Emergency Response Guide Number 147

MEX Not regulated

<u>ICAO</u> Not regulated

IATANot regulatedProper Shipping NameNON REGULATED

Hazard Class N/A

IMDG/IMO Not regulated

Hazard Class N/A F-A, S-I

RID Not regulated

ADR Not regulated

ADN Not regulated

# 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

### **International Regulations**

Ozone-depleting substances (ODS) Not applicable

Persistent Organic Pollutants Not applicable

### **Export Notification requirements** Not applicable

**International Inventories** 

**TSCA** Contact supplier for inventory compliance status. **DSL/NDSL** Contact supplier for inventory compliance status. **EINECS/ELINCS** Contact supplier for inventory compliance status. **ENCS** Contact supplier for inventory compliance status. **KECL** Contact supplier for inventory compliance status. **PICCS** Contact supplier for inventory compliance status. **AICS** Contact supplier for inventory compliance status.

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

# 16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

Health hazardsFlammability Instability 0 NFPA **Physical and Chemical** 

Properties -

HMIS Health hazardsFlammability Physical hazards 0

Personal Protection X

Prepared By Guangzhou CP-UP Certification Technology Service Co., Ltd

**Issuing Date** 01-14-2021

**Revision Note** No information available

#### **Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

#### **End of Safety Data Sheet**

Inhalation Statement dust

Not Hazardous This is a battery. In case of rupture:

Hazard statements Causes damage to organs through prolonged or repeated exposure

Signal word

Precautionary Statements P302 + P352 - IF ON SKIN: Wash with plenty of water and soap P321 - Specific treatment

(see supplemental first aid instructions on this label) P332 + P313 - If skin irritation occurs: Get medical advice/attention P362 + P364 - Take off contaminated clothing and wash it before reuse P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P337 + P313 - If eye irritation persists: Get medical advice/attention P201 - Obtain special instructions before use P202 - Do not handle until all safety precautions have been read and understood P280 - Wear protective gloves/protective clothing/eye protection/face protection P308 + P313 - IF exposed or concerned: Get medical advice/attention P405 - Store locked up P260 - Do not breathe dust/fume/gas/mist/vapors/spray P264 - Wash face, hands and any exposed skin thoroughly after handling P270 - Do not eat, drink or smoke when using this product P314 - Get medical advice/attention if you feel unwell P501 - Dispose of contents/ container to an approved waste

disposal plant

Signal word Danger

Skin corrosion/irritation Hazard statements

Signal word

Serious eye damage/eye irritation

Hazard statements Signal word Carcinogenicity Hazard statements Signal word

Specific target organ toxicity (repeated exposure)

Skin corrosion/irritation

Serious eye damage/eye irritation

Carcinogenicity

STOT - repeated exposure STOT - repeated exposure

Graphic

Graphic

Graphic

Hazard statements

Hazard statements

Precautionary Statements - EU (§28, 1272/2008)

**Precautionary Statements** 

Category 2

Causes skin irritation

Warning

Category 2A

Causes serious eye irritation

Warning

Category 2

Suspected of causing cancer

Warning

Category 1

- (H315)

- (H319) - (H351)

- (H372)



Causes skin irritation Causes serious eye irritation Suspected of causing cancer Causes damage to organs through prolonged or repeated exposure

H315 - Causes skin irritation H319 - Causes serious eye irritation H351 - Suspected of causing cancer H351 - Suspected of causing cancer H372 - Causes damage to organs through prolonged or repeated exposure H372 - Causes damage to organs through prolonged or repeated exposure

P103 - Read label before use P280 - Wear face protection P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish P234 - Keep only in original container P303 - IF ON SKIN (or hair):

IF ON SKIN: Wash with plenty of water and soap IF ON SKIN: Wash with plenty of water and soap If skin irritation occurs: Get medical advice/attention If skin irritation occurs: Get medical advice/attention Take off contaminated clothing And wash it before reuse Take off contaminated clothing and wash it before reuse Take off contaminated clothing And wash it before reuse Take off contaminated clothing and wash it before reuse IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing If eye irritation persists: Get medical advice/attention If eye irritation persists: Get medical advice/attention Obtain special instructions before use Obtain special instructions before use Do not handle until all safety precautions have been read and understood Do not handle until all safety precautions have been read and understood Wear protective gloves Wear protective gloves IF exposed or concerned: Get medical advice/attention IF exposed or concerned: Get medical

Skin

Eyes

Skin

Units

Units

advice/attention Store locked up Do not breathe dust/fume/gas/mist/vapors/spray Do not

breathe dust/fume/gas/mist/vapors/spray Do not breathe dust/fume/gas/mist/vapors/spray Do not eat, drink or smoke when using this product Do not eat, drink or smoke when using this product Get medical advice/attention if you feel unwell Get medical advice/attention if you feel unwell IF ON SKIN: Wash with plenty of water and soap If skin irritation occurs: Get medical advice/attention Take off contaminated clothing and wash it before reuse **Precautionary Statements** P302 + P352 - IF ON SKIN: Wash with plenty of water and soap P321 - Specific treatment (see supplemental first aid instructions on this label) P332 + P313 - If skin irritation occurs: Get medical advice/attention P362 + P364 - Take off contaminated clothing and wash it before reuse P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P337 + P313 - If eye irritation persists: Get medical advice/attention P201 - Obtain special instructions before use P202 - Do not handle until all safety precautions have been read and understood P280 - Wear protective gloves/protective clothing/eye protection/face protection P308 + P313 - IF exposed or concerned: Get medical advice/attention P405 - Store locked up P260 - Do not breathe dust/fume/gas/mist/vapors/spray P264 - Wash face, hands and any exposed skin thoroughly after handling P270 - Do not eat, drink or smoke when using this product P314 - Get medical advice/attention if you feel unwell P501 - Dispose of contents/ container to an approved waste disposal plant Precautionary Statements - Prevention Obtain special instructions before use Do not handle until all safety precautions have been read and understood Wear protective gloves/protective clothing/eye protection/face protection Wash face, hands and any exposed skin thoroughly after handling Do not breathe dust/fume/gas/mist/vapors/spray Do not eat, drink or smoke when using this product IF exposed or concerned: Get medical advice/attention Specific treatment (see supplemental Precautionary Statements - Response first aid instructions on this label) IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing If eye irritation persists: Get medical advice/attention IF ON SKIN: Wash with plenty of water and soap If skin irritation occurs: Get medical advice/attention Take off contaminated clothing and wash it before reuse Precautionary Statements - Storage Store locked up Precautionary Statements - Disposal Dispose of contents/container to an approved waste disposal plant The following values are calculated based on chapter 3.1 of the GHS document ATEmix (oral) 12,452.00 mg/kg ATEmix (dermal) 9,132.00 mg/kg Contains Carbon black, Phosphate(1-), hexafluoro-, lithium Unknown acute toxicity 90.77 % of the mixture consists of component(s) of unknown hazards to the aquatic environment Unknown Acute Aquatic Toxicity 90.77 Unknown Chronic Aquatic Toxicity 90.77 Product ATE Oral Status Product ATE Dermal Status 1 Product ATE Inhalation - Gas Status 1 Product ATE Inhalation - Vapor Status Product ATE Inhalation - Dust/Mist Status Product Skin Corrosion Status Product Eye Damage Status Product Respiratory Sens. Status Product Skin Sensitization Status **Product Mutagenic Status** Product Carcinogenic Status Product Reproductive Toxicity Status Product STOT Single Status **Product STOT Repeated Status** Product Aquatic Toxicity Status **Product Aspiration Toxicity Status Product Ozone Status** Product and Component Overall Classification Status 1 STOT - repeated exposure - (H372) Unknown acute toxicity 30.9 % of the mixture consists of ingredient(s) of unknown toxicity 30.9 % of the mixture consists of ingredient(s) of unknown acute oral toxicity 30.9 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

30.9 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas) 30.9 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)

30.9 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Symbols/Pictograms

Symbols/Pictograms

Other hazards Health hazards Health hazards Inhalation Statement Health hazards Very toxic to aquatic life with long lasting effects Skull and Crossbones Exclamation mark dust 1