MANUFACTURER:

Daqin New Energy Tech(Taizhou) Co., Ltd

Material Safety Data Sheet

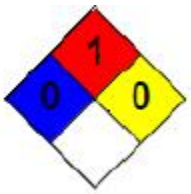
File No: 2021-03-20

Section 1 - Product and Company Identification

Product Name	Energy Storage Battery
Battery Type	Powerbox Pro
Battery Capacity	200Ah
Battery Voltage	51.2V
Manufacturer	Daqin New Energy Tech(Taizhou)Co., Ltd
Address	199 Keji Road,Sanshui Street,Jiangyan District,Taizhou City, P.R.China
Post Code	225500
TEL	+86-523-88510062
Emergency Telephone	+86-523-88510062
Importer name	Solar Energy Warehouse
Import address	1553-1555 Botany Rd, Botany NSW 2019
Importer phone	1300 974 654
Importer email	nestor@solarenergywarehouse.com.au
Importer emergency phone	411 077 214

Section 2 - Hazard Identification

Hazard label (CN)	

	GB6944 9th Goods
NFPA Rating (USA)	
Other Hazard	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.

Section 3 - Composition/Information on ingredients

Hazardous components		CAS#	% (by weight)
LiFePO4		15365-14-7	18-27
Carbon		7440-44-0	7-16
Electrolyte	$LiPF_6$	21324-40-3	17-26
	Solvent	/	
PVDF		24937-79-9	3-5
PP		9003-07-0	2-3
Copper		7440-50-8	7-14
Aluminum		7429-90-5	16-25
Aluminum-Plastic Film		7440-50-8	5-6

Section 4 - First Aid Measures

Skin contact	Remove contaminated clothes and rinse skin with plenty of water or shower for 15 minutes, Seek medical attention immediately.
Eye contact	Immediately flush eyes with plenty of water continuously for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek medical attention immediately.
Inhalation	Cover the victim in a blanket, move to the place of fresh air and keep quiet. Seek medical attention immediately. When dyspnea (breathing difficulty) or asphyxia (breath-bald), give artificial respiration immediately.
Ingestion	Give at least 2 glasses of milk or water. Induce vomiting unless patient is unconscious. Call a physician.

Section 5 - Fire Fighting Measures

Suitable Extinguisher	Dry power, sand, carbon dioxide (CO2).
Unsuitable Extinguisher	Water, water spray.
Specific hazards	Risk of receptacle bursting.
Special protective equipment for firefighters	In the event of a fire, wear full protective clothing and self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

NFPA	Health: 0 Flammability: 1 Instability : 0

Section 6 - Accidental Release Measures

Personal precautions	Remove personnel from area until dissipate. Use personal protective equipment. Avoid contact with skin and eyes.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not allow material to contaminate ground water system. Do not throw out into the environment.
Methods for cleaning up	Dilute the leaked electrolyte with water and neutralize with diluted sulfuric acid. The leaked solid is moved to a container. The leaked place is fully flushed with water.

Section 7 - Handling and Storage

Handling	Technical measures: Prevention of user exposure; not necessary under normal use. Prevention of fire and explosion: Not necessary under normal use. Precaution for safe handling: Do not damage or remove the external shell. Specific safe handling advice: Never throw out battery in a fire or expose to high temperatures(above 60℃). Do not soak battery in water and seawater. Do not expose to strong oxidizers. Do not give a strong mechanical shock or throw down. Never disassemble, modify or deform. Do not connect the positive terminal to the negative terminal with electrically conductive material. In the case of charging, use only dedicated charge or charge according to the conditions specified by the supplier.
Storage	Storage conditions (suitable to be avoided) Avoid direct sunlight, high temperature, and high humidity. Store in cool place (temperature:-10～45℃,humidity: 45～85%). Incompatible products: Conductive materials, water, seawater, strong oxidizers and strong acids. Packing material: Insulative and tear-proof, waterproof materials are recommended.

Section 8 - Exposure Controls and Person Protection

Engineering controls	Use local exhaust ventilation or other engineering controls to control sources of dust, mist, fume and vapor
Exposure limits	Airborne exposures to hazardous substances are not expected when product is used for its intended purpose.
Eye protection	Not necessary under normal conditions. Wear safety glasses if handling an open or leaking cell.
Skin protection	Not necessary under normal conditions. Wear neoprene or nature rubber gloves if handling an open or leaking cell.
Hygiene Measures	Do not eat, drink or smoke in work areas.

Section 9 - Physical and Chemical Properties

Appearance and odor	N/A
PH	N/A
Flash point(℃)	N/A
Melting point (℃)	N/A
Boiling point (℃)	N/A
Relative density (water=1)	N/A
Relative Vapour density (air=1)	N/A
Vapour pressure (KPa)	N/A
Heat of combustion (KJ/mol)	N/A
Auto-ignition temperature (℃)	N/A
Solubility	Insoluble in water
Lower explosive limits % (V/V)	N/A
Upper explosive limits % (V/V)	N/A

Section 10 - Stability and Reactivity

Stability	Product is stable under storage conditions described in Section 7.
Incompatibilities	Strong oxidizing agents, acids.
Conditions to avoid	Direct sunlight, high temperature and high humidity. Do not heat above 60℃ , incinerate, or expose contents to water.
Hazardous Polymerization	Will not occur.
Hazardous decomposition	When a battery is heated strongly by the surrounding fire, acrid or harmful fume may be emitted.

Section 11 - Toxicological Information

None unless internal materials are exposed.
Toxic information is available on the ingredients noted in section 3, but generally not available to intact batteries as used by customers.
In case of internal gas released or electrolyte spilled, electrolyte and organic solvents has small toxicity and may cause irritation of skin or eyes. Released gas may also cause irritation of skin of eyes.

Section 12 - Ecological Information

Ecological toxicity	No data available.
Environmental	Since a battery cell and the internal materials remain in the environment, it can’t be degradable. Do not throw out into the environment.
Bioaccumulation	No information.

Section 13 -Disposal Considerations

Disposal measures	Do not throw out a used battery cell. Lithium ion cells and batteries can be disposable in accordance with appropriate federal, state and local regulations. However, we recommend recycling, since these cells and batteries contain recyclable material (LiFePO4).

Section 14 - Transportation

UN Number	UN3480
PROPER SHIPPING NAME	Lithium ion batteries(including lithium ion polymer batteries)
Packaging Group	NONE
sea contamination	None
Land transport (ADR/RID)	Class 9
Sea transport (IMDG)	Class 9
Air transport (ICAO-TI/IATA DGR)	Class 9
National regulations	National regulations for transport land GB12268 This battery type is classified as dangerous goods for transport, because the watt-hour rating of the battery exceeds 100 Wh. We also declare that this battery type meets the requirements of each test in the UN Manual of tests and Criteria Part III, Subsection 38.3 (ST/SG/AC.10/11/Rev.5)

Section 15 - Regulatory Information

Major applicable regulations for the transportation of lithium-ion cells and batteries are as follows:

The UN Model Regulations, United Nations ST/SG/AC.10/1/Rev 16. Recommendations on the Safe Transport of Dangerous Goods

The International Civil Aviation Organization (ICAO) Technical Instructions for the Safe Transport of Dangerous Goods by Air Transport

The International Air Transport Association (IATA) Dangerous Goods Regulations (57th Edition 2016)

International Maritime Organization (IMO) International Maritime Dangerous Goods Code (IMDG Code) . 01-01 2014

OSHA Hazard communication standard (29 CFR 1910)

_____Hazardous ___√___Non-hazard

Section 16 - Other Information

The information contained in this Safety data sheet is based on the present state of knowledge and current legislation.
This safety data sheet provider guidance on health. Safety and environmental specs of the product and should not be construed as any guarantee of technical performance or suitability for particular applications.

Company	Daqin New Energy Tech(Taizhou)Co., Ltd
Address/Tel	199 Keji Road,Sanshui Street,Jiangyan District,Taizhou City, P.R.China
Approved by	Zhang weizhong
Date issued	2021-03-20

The material safety data sheet is furnished to every manufacturer as a reference to secure the safe handling of chemical.

Every manufacturer is requested to carry out appropriate actions for chemical handling as their own responsibility. The supplier makes no warrantee, either express or implied. Concerning of this products, User assumes all risks resulting from its use.