MATERIAL SAFETY DATA SHEET

Section 1 – Product and Company Identification

The batteries are exempt articles and are not subject to the OSHA Hazard Communication Standard Requirement. This sheet is provided as technical information only. The information and recommendations set forth are made in good faith and believed to be accurate as of the date of preparation. However, Changzhou Newton Force makes no warranty expressed or Implied.

Product Name: Lithium Polymer Batteries used in portable electronic equipments	Type: YAK-01 / PB9-01	Date of preparation: Apr 10 2019
Company: Changzhou Newton Force Weighing System Co., Ltd.	Telephone Numbers: 0086 - 519 - 68066966	
Address: No. 228 JinSheng East Road, Changzhou, P. R. China	Fax Numbers: 0086 - 519 - 68066969	

Section 2 – Hazards Identification

This contains lithium, organic solvent, and other combustible materials. For this reason, Imp -roper handling of the battery could lead to distortion, leakage, overheating, explosion of fire and cause human injury or equipment trouble. Please strictly observe safety instructions.

Section 3 – First Aid Measures

None unless internal materials exposure. If contents are leaked out, observe following Instru -ctions.

Inhalation:	Fumes can cause respiratory irritation. Remove of fresh air and consult a physician.
Skin:	Immediately flush skin with plenty of water. If itch or irritation by chemical burn persists, consult a physician.
Eyes:	Immediately flush eye with plenty of water for at least 15 minutes. Consult a physician immediately.
Ingestion:	If swallowing a battery, consult a physician immediately. If contents come into mouth, immediately rinse by plenty of water and consult a physician.

Section 4 – Fire Fighting Measures

Extinguishing Media:	Extinguisher of alkaline metal fire is effective. Plenty of cold water is also effective to cool the surrounding area and control the spread fire. But hydrogen gas may be evolved by the reaction of water and lithium and it can form an explosive mixture. Therefore in the case that lots of lithium batteries are burning in a confined space, use a smothering agent.
Fire fighting procedure:	Use self-contained breathing apparatus and full protective gear not to inhale harmful gas.

Section 5 – Accidental Release Measures

Accidental Release:	Do not breathe vapors or touch liquid with bare hands
Waste Disposal Methods:	Evacuate area. If possible, a trained person should attempt to stop or contain the leak by neutralizing spill with soda lime or baking soda. A NIOSH Approved Acid Gas Filter Mask or Self-Contained Breathing Apparatus should be worn. Seal leaking battery and soda lime or baking soda in a plastic bag and dispose of as hazardous waste.
Other:	Follow North American Emergency Response Guide (NAERG) #138 for cells involved in an accident, cell that have vented, or have exploded.

Section 6 – Handling and Storage

1) Handling

Never swallow. Never reverse the positive and negative terminals when mounting. Never short-circuit the battery. Never heat. Never expose to open flame. Never disassemble. Never weld the terminal or wire to the body of the battery directly. Never touch the liquid leaked out of battery. Never bring fire close to battery liquid. Never keep in touch with battery.

2) Storage

Never let the battery contact with water. Never store the battery in hot and high humid place. Don't push the battery excessively and destroy the battery packaging, often wet and ventilating the dry place to keep in the normal atmospheric temperature, find the unusual battery is dealt with in time.

Section 7 – Exposure Controls, Personal Protection

Respiratory Protection		N/A
Ventilation	Local Exhaust	N/A
	Mechanical	N/A
	Special	N/A
	Other	N/A
Eye Protection		N/A
Protective Gloves		N/A
Other protective clothing		N/A

Section 8 – Physical/Chemical Characteristics

State of matter:	Solid state
Form:	Column type
Color:	White of ABS plastic cover
Smell:	Tasteless (At the time of the fullness)
Resolve temperature	N/A
Spontaneous combustion temperature:	N/A
Explosion demarcation line:	Higher than 170 degree Centigrade of batteries will be burnt
To the density (Water = 1) :	N/A
Dissolving:	N/A

Boiling Point:	1,2-Dimethoxyethane:	83℃
Vapor Pressure:	1,2-Dimethoxyethane:	6.40 (20℃)
Vapor Density:	1,2-Dimethoxyethane:	3.11
Solubility in Water:	1,2-Dimethoxyethane:	dif-fluence contact with water
Specific Gravity:	1,2-Dimethoxyethane:	1.63
Melting Point:	1,2-Dimethoxyethane:	-67℃
Evaporation Rate:	N/A	
Water Reactive:	1,2-Dimethoxyethane:	dif-fluence contact with water
Appearance & Odor:	1,2-Dimethoxyethane:	achromatism liquid; slight aether odor.

Section 9 – Stability and Reactivity

Stability:	Stable
Incompatibility:	Water
Hazardous polymerization:	Will not occur
Condition to avoid:	See section 6.
Hazardous Decomposition or Byproducts:	Hydrogen

Section 10 – Toxicological Information

Acute Toxicity:

1,2-Dimethoxyethane:	LC_{50} (Inhalation):	N/A
	LC_{50}:	N/A
	Eye Effects:	Corrosive
	Skin Effects:	Corrosive

Section 11 – Ecological Information

Aquatic Toxicity: Do not let internal components enter marine environments. Avoid releases into waterways, wastewater or groundwater.

Section 12 – Disposal Condition

The battery may be regulated by national or local regulation. Please follow the instructions of proper regulation. As electric capacity is left in a discarded battery and it comes into contact with other metals, it could lead to distortion, leakage, overheating, or explosion, so make sure to cover the (+) and (-) terminals with friction tape or some insulator before disposal.

Section 13 – Transportation Information

Lithium battery is considered as “Not Restricted” cargo because they complied with IATA Dangerous Goods Regulation 60th Edition of 2019 & Section II of Packing Instruction PI 965.

Shipping Name: Lithium Polymer Batteries

UN Number: UN3480

Hazard Classification: Class 9 (Miscellaneous)

Organizations governing the transport of lithium batteries

Area	Method	Organization	Special Provision
International	Air	IATA, ICAO	Packing instruction 965
International	Water	IMO	188 & 230
U.S.A	Air, Rail, Highway, Water	DOT	49 CFR Section 173.185

These regulations are based on the UN Recommendations. Each special provision provides specifications on exceptions and packaging for shipping lithium batteries. All the Lithium Polymer Batteries of Changzhou Newton Force comply in all respects can be shipped as “Not Restricted” cargo in accordance with IATA Dangerous Goods Regulations 55 Edition & Section II of Packaging Instruction PI 965.

If all of following 3 requirements is satisfied, lithium polymer batteries can be transported as “Not Restricted” cargo.

1) Lithium weight or equivalent lithium content must be less than value in table.

Contents	Lithium metal cells and/or batteries with a lithium content not more than 0.3 g	Lithium metal cells and/or batteries with a lithium content greater than 0.3 g but not more than 1 g	Lithium metal cells and/or batteries with a lithium content greater than 1 g but not more than 2 g
Maximum number of cells / batteries per package	No limit	8 pieces per carton	2 pieces per carton
Maximum net quantity (mass) per package	2.5 kg	N/A	N/A

Equivalent lithium content (g) is calculated as 0.3 (g/Ah) times the rated capacity (Ah).

2) Each cell or battery is of the type proven to meet the requirements of each test in the UN Manual of Tests and Criteria, Part III, section 38.3 Cells.

3) Section II of packing Instruction PI 965:

   a) Be marked to indicate that it contains lithium polymer batteries, and that special procedures be followed in the event that the package is damaged.

   b) Each package must be labeled with a lithium battery handling label.

   c) Be accompanied by a shipping paper explaining that the cells and batteries are excepted from regulations.

   d) Packaging requirement following to above 1) Lithium weight or equivalent lithium content must be less than value in table.

   e) Be capable of withstanding a 1.2 m drop test in any orientation without shifting of the contents that would allow short-circuiting, and without release of package contents.

Because the consignor has to take the responsibility, the customer has to confirm the exception conditions when shipping.

Section 14 – Regulatory Information

EC Labeling: None

Risk Phrases: None

Safety Phrases: None

Quality system: Available

Labeling is not required because batteries are classified as “articles” under the Dangerous Preparations Directive and as such are exempt from the requirements of the Directive.