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Material Safety Data Sheet

-1-	My n 3
Identity (As Used on Label and List)	Part Number
3V Lithium manganese dioxide button cell	CR927,CR1025,CR1130,CR1212,CR1216,
	CR1220,CR1225,CR1616,CR1620,CR1625,
	CR1632,CR2016,CR2025,CR2032,CR2330,
	CR2354,CR2430,CR2450,CR2477,CR3032

Section I: Information of Manufacturer

Manufacturer's Name	Emergency Telephone Number	
Changzhou Yufeng Battery Co., Ltd	0519-83885169	
Address (Number, Street, City, State, and ZIP	Telephone Number for information	
Code)	0519-83885169	
No.115, Tianhe Road, Xinbei District, Changzhou, Jiangsu,		
PRC 213031		
	Date of prepared and revision	
	2022-01-01	
	Signature of Preparer (optional)	

Section II: Hazardous Ingredients/Identity Information

Ingredient	CAS NO.	Content(wt%)of total weight	
Lithium	7439-93-2	2.2	
Propylene Carbonate	-108-32-7	6.0	
Manganese dioxide	1313-13-9	28	
1,2-Dimethoxyethane	110-71-4	3.6	
Lithium perchlorate	7791-03-9	1.1	
Iron	7439-89-6	45	
Polypropylene	9003-07-0	14.1	
Lead	7439-92-1	Not Detected	
Cadmium	7440-43-9	Not Detected	
Mercury	7439-97-6	Not Detected	

Section III: Physical/Chemical Characteristics

Form	
NA	
Boiling Point	
NA	
Vapor Pressure (mm Hg)	Specific Gravity (H2O =1)

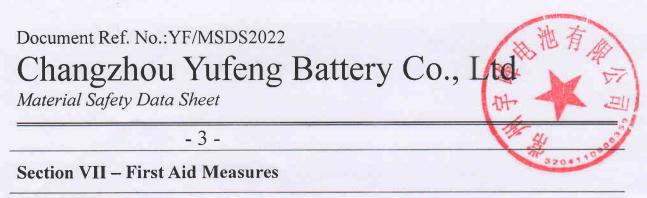
Document Ref. No.:YF/MSDS2022 Changzhou Yufeng Battery Co., Lto Material Safety Data Sheet - 2 -NA Melting Point Vapor Density (AIR=1) NA NA Solubility in Water **Evaporation Rate** (Buty1 Acetate=1) NA NA Ph NA Appearance and Odor Section IV: Hazard classification NA NA

Section V: Reactivity Data

Stability Yes=(X)

Incompatibility	Unstable	Conditions to Avoid
(Materials to	()	
Avoid)	Stable	
Hazardous	(X)	
Decomposition or		
By products		
NA		
Hazardous Reaction	ns	
Yes = (X)	•	

May Occur	Conditions to Avoid	
()		
Will Not Occur		
, (X)		
1.1.1.1.1		
	1 X	
Yes=(X) Inhalation?	Skin?	Ingestion?
(NA)	(NA)	(NA)
Acute and Chronic) / Toxicolog	gical in formation	
trolyte leakage, skin will be itchy w	hen contaminated with electrolyt	æ.
	() Will Not Occur (X) Yes=(X) Inhalation? (NA) Acute and Chronic) / Toxicolog	() Will Not Occur (X) Yes=(X) Inhalation? Skin?



Firs aid Procedures

If electrolyte leakage occurs and makes contact with skin, wash immediately.

If electrolyte comes into contact with eyes, wash with copious amounts of water for fifteen minutes, and contact a physician.

Section VIII: Fire and Explosion Hazard Data

Flash Point (Method Used)	Ignition temp	Flammable Limits	LEL	UEL
NA	NA	NA	NA	NA
Extinguishing Media				
NA				
Special Fire Fighting Procedures				
NA				
Unusual Fire and Explosion H	lazards			
Do not dispose of battery in fi	re – may explode.			
Do not short – circuit battery -	- may cause burns.			

Section IX: Accidental Release or Spillage

Steps to Be Taken in Case Material is Released or Spilled

Batteries that are leaking should be handled with rubber gloves.

Avoid direct contact with electrolyte.

Section X: Handing and Storage

Safe handing and storage advice

The battery is extremely sensitive to adverse effects of humidity. Be sure to store them in a place that is dry and subject to little temperature change. Do not place near the boiler or radiator, nor expose to direct sun light. Do not dispose of the battery in fire. Do not charge the battery. Do not short- circuit the battery. Do not put in backward position. Do not store in disorderly fashion, or allow metal objects to be mixed with stored batteries. Do not disassemble the battery, handing in such manner can cause the battery to explode, leak and injury.

Section XI: Exposure Controls / Personal Protection

Occupational Exposure Limits : LTEP

NA

	_	attery Co., Btd
and the second	- 4 -	My w S
Respiratory Protec	tion (Specify Type) NA	# 320411
Ventilation		STEP NA
Protective Gloves	Local Exhausts NA	Special
A Other Protective Clothing or Equipment	Mechanical (general) NA	Other NA
Work / Hygienic P	ractices NA	Eye Protection NA

Section XII: Ecological Information

NA

Section XIII: Disposal Method

Do not incinerate or subject cells to temperature in excess of 80°C.Dispose of in accordance with local regulations.

Section XIV: Transportation Information

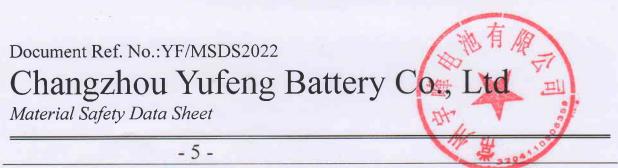
Lithium battery is considered as "Not Restricted" cargo because they complied UN Recommendations.

Shipping Name	Lithium Metal Batteries
UN Number	UN3090

Organizations governing the transport of lithium batteries

Area	Method	Organization	Special Provision
International	Air	IATA,ICAO	Best Practice 008
International	Ocean	IMO / IMDG	188

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



These regulations are based on the UN Recommendations. Each special provision provides specifications on exceptions for shipping lithium batteries. All Yufeng's batteries meet all special provisions.

If all of following 2 requirements are satisfied, lithium metal batteries can be transported as "Not Restricted" cargo.

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

Lithium Cell/Battery (Lithium weight)	
Cell	1g or less
Battery	2g or less

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. T1 - T8 Test.

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

Lithium battery international transportation rules. Based on a United Nations recommendation, the regulation for lithium metal cell and batteries has been revised in the international Air Transport Association (IATA) dangerous goods regulations (DGR Rev.63).Each cell or battery pack meets the requirements of each test in the UN Manual of Tests and Criteria III, sub section 38.3. The Cells / Batteries are "Not Restricted" Cargo

1. Must comply with Section II of PI968-PI970 accordingly.

2. For cells, the lithium content should not be more than 1 g; while for batteries, the aggregate lithium content should not be more than 2 g.

3. For those Lithium metal cells / batteries contained in equipment, the equipment must be equipped with an effective means of preventing accidental activation.

Section XV: Regulatory Information

IATA Dangerous Goods Regulations.

ICAO Technical Instructions for the safe transport of dangerous goods by air.

Section XVI: Other Information

This MSDS is described on the basis of present materials, information and data, so, please notice that it will be revised by new information. Also this sheet is supplied to entrepreneurs as reference information in order to handle batteries safely. Please notice that entrepreneur have to deal with batteries as they think fit.

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References	(1) UN Recommendations on the Transportation of Dangerous Goods Model	
	Regulations (ST/SG/AC.10/1/rEV.12)	
	(2) Federal Resister / Vol.65, No. 174 / Thursday, September 7, 2000 / Notices	

(3) IATA Dangerous Goods Regulations 63rd Edition (2022)

Section XVII: Measures for fire extinction

Suitable fire extinguishing agent: CO_2 , fire extinguisher, ABC dry powder extinguisher, sand, etc. Can't quench, a small amount of can cover with the sand first, burn and need to use the fire extinguisher in a large amount. Much water can put out a fire was aroused a few battery. The fire fighter's special shelter is equipped: Wearing the air respirator, protects the helmet, glasses, etc.