



Icom America Inc.
12421 Willows Rd NE, Kirkland WA 98034.
Phone: 425 454 8155 Fax : 425 454 1509
Website: www.icomamerica.com

American Communication Systems
Discover the Power of Communications™
<http://www.ameradio.com>



Thank you for contacting Icom America, Inc.

Attached you will find the Safety Data Sheet (SDS) for the following battery:

Part Number	Description
BP-245H, 280, 290, 292UL, 294, 296, 298, 299, 300	Li-Ion Battery

This Lithium Ion Rechargeable battery cell battery has 2 cells and is manufactured by Zhuhai Gushine Electronic Technology Ltd.

The Country of Origin is: China

If you have any further questions or require additional information, please do not hesitate to contact our Customer Service Department at 1-800-USA-ICOM or email of sales@icomamerica.com.

We appreciate your valued support of our quality line of equipment.

IATA - Lithium Ion Batteries (NOT RESTRICTED, Labeling, Marking and Completion of AWB)
PI-965 SII when they are packaged battery only (when purchased as spare battery)
PI-966 SII when they are packaged together with radios (when purchased as radio that box includes one battery without attached to the radio).
See the following link for Lithium Batteries information:
<http://www.iata.org/whatwedo/cargo/dgr/Pages/lithium-batteries.aspx>

1. Identification of the Product/Preparation and of the Company/Undertaking

Product Information

Trade Name: Gushine Rechargeable Lithium-ion Battery
 Model: Gushine Chemistry Lithium Ion
 Chemical System: Graphite/ Lithium Cobalt Oxide
 Use of the Product/Preparation: Energy application
 Company: Zhuhai Gushine Electronic Technology Ltd.
 Address: NO. 28, PINGBEI 1 ROAD, NANPING HI-TECH INDUSTRIAL ZONE
 ZHU HAI CITY, GUANGDONG PROVINCE, CHINA
 Telephone: (0756) 6299126 6299128
 Fax: (0756) 6299123 P.R.C: 519060

2. Composition Information

Portion	Material name	CAS No.	Concentration range (wt %)
Positive electrode	Lithium transition metal oxidate (Li[M] _n [O] _n *2)	12190-79-3	20~60
		12057-17-9	
		182442-95-1	
Positive electrode's base	Aluminum	7429-90-5	1~10
Negative electrode	Carbon	7782-42-5	10~30
		7440-44-0	
Negative electrode's base	Copper	7440-50-8	1~15
Electrolyte	Ethyl methyl carbonate Diethyl carbonate Ethylene carbonate	623-53-0	5~25
		105-58-8	
		96-49-1	
Outer case	Aluminum	7429-90-5	1~30

3. Hazard Identification

Emergency Overview

May explode in a fire, which could release hydrogen fluoride gas.

Use extinguishing media suitable for materials burning in fire.

Primary routes of entry

Skin contact : NO



Gushine

GU-MSDS20190101-V1

Skin absorption	: NO
Eye contact	: NO
Inhalation	: NO
Ingestion	:NO

Symptoms of exposure

Skin contact

No effect under routine handling and use.

Skin absorption

No effect under routine handling and use.

Eye contact

No effect under routine handling and use.

Inhalation

No effect under routine handling and use.

Reported as carcinogen

Not applicable

- (a) GHS classification of the substance/mixture and any national or regional information;
- (b) GHS label elements, including precautionary statements.(Hazard symbols may be provided as a graphical reproduction of the symbols in black and white or the name o
- (c) f the symbols e.g. flame ,skull and crossbones);
- (d) Other hazard which do not result in classification (e.g. dust explosion hazard) or are not covered by the GHS.

4. First Aid Measures

Inhalation

Not a health hazard

Eye contact

Not a health hazard.

Skin contact

Not a health hazard.

Ingestion

If swallowed, obtain medical attention immediately.

IF EXPOSURE TO INTERNAL MATERIALS WITHIN CELL DUE TO DAMAGED OUTER CASING, THE FOLLOWING ACTIONS ARE RECOMMENDED;

Inhalation

Leave area immediately and seek medical attention

Eye contact

Rinse eyes with water for 15min.

Skin contact

Wash area thoroughly with soap and water and seek medical attention.

Ingestion

Drink milk/water and induce vomiting; seek medical attention.

5. Fire Fighting Measures

General Hazard

Cell is not flammable. Combustion products include, but are not limited to Hydrogen fluoride, carbon monoxide and carbon dioxide.

Extinguishing Media

Use extinguishing media suitable for the materials that are burning

Special Fire fighting Instructions

If possible, remove cell(s) from fire fighting area, If heated above 160°C, cell(s) may explode/vent.

Fire fighting Equipment

Use NIOSH/MASHA approved full-face self-contained breathing apparatus (SCBA) with full protective gear.

6. Accidental Release Measures

On land

Place material into suitable containers and call local fire/police department.

In water

If possible, remove from water and call local fire/police department.

7. Handling and Storage

Handling

No special protective clothing required for handling individual cells.

Storage

Store in a cool, dry place.

8. Exposure Controls/Personal Protection

Engineering control

Keep away from heat and open flame. Store in a cool dry place.

Personal Protection

Respirator

Not required during normal operations. SABA required in the event of a fire

Eye/face protection

Not required safety practices of employer.

Glove

Not required for handling of cells.

Foot protection

Steel toed shoes recommended for large container handling.

9. Physical and Chemical Properties

State	Solid
Odor	N/A
PH	N/A
Vapor pressure	N/A
Vapor density	N/A
Boiling point	N/A
Solubility in water	Insoluble
Specific gravity	N/A
Density	N/A

10. Stability and Reactivity

Reactivity

None.

Incompatibilities

None during normal operation. Avoid exposure to heat, open flame, and corrosives.

Hazardous Decomposition Products

None during normal operating conditions. If cells are opened, hydrogen fluoride and carbon monoxide may be released.

Conditions TO Avoid

Avoid exposure to heat and open flame. Do not puncture, crush or incinerate.

11. Toxicological Information

This product does not elicit toxicological properties during routine handling and use

Sensitization	Teratogenicity	Reproductive toxicity	Acute toxicity
NO	NO	NO	NO

If the cells are opened through misuse or damage, discard immediately. Internal components of cell are irritants and sensitizers.

12. Ecological Information

Some materials within the cell are bio-accumulative. Under normal conditions, These materials are contained and pose no risk to persons or the surrounding environment.

13. Disposal Considerations

California regulated debris

RCRA Waste Code: Non-regulated

Dispose of according to all federal, state, and local regulations.

14. Transport Information

In the case of transportation, confirm no leakage and no overspill from a container. Take in a cargo of them without falling, dropping and breakage. Prevent collapse of cargo piles and wet by rain. The container must be handled carefully. Do not give shocks that result in a mark of hitting on a pack. Please refer to Section 7-HANDLING AND STORAGE also.

UN regulation

·UN number:3480(3481 when the battery is contained in equipment or packed with equipment)

·Proper shipping name:

Lithium ion batteries

·Class:9 *

·Packing group:

Regulation depends on region and transportation mode:



Gushine

GU-MSDS20190101-V1

- Worldwide-Air transportation:
ICAO/IATA-DGR[packing instruction 965 section IB or II]
- Worldwide-Ocean transportation:
IMO-IMDG Code [special provision 188]
- Europe-Ground transportation:
ADR [special provision 188]

**Instruction or provision in the box bracket are conditions to make the battery cell exempted from full regulation*

15. Regulatory Information

OSHA Hazard communication standard (29 CFR 1910.1200)
Hazardous V Non-hazardous

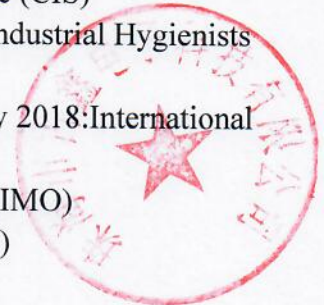
16. Other Information

The information contained in this Safety data sheet is based on the present state of knowledge and current legislation.

This safety data sheet provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications.

Reference

Chemical substances information: Japan Advanced Information center of Safety and Health International Chemical Safety Cards (ICSCs):
International Occupational Safety and Health Information Centre (CIS)
1999 TLVs and BEIs: American Conference of Governmental Industrial Hygienists (ACGIH)
Dangerous Goods Regulations –59th Edition Effective 1 January 2018:International Air Transport Association(IATA)
IMDG Code-2017 Edition:International Maritime Organization(IMO)
The United Nations Economic Commission for Europe(UNECE)



American Communication Systems

Discover the Power of Communications™

<http://www.ameradio.com>

