



Formosa Electronic Industries Inc.

Material Safety Data Sheet Report

Trademark : 億立 MG1

APPROVER

CHECKER

TESTER

FILE-NO

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1. Chemical Product And Company Identification

Product Identification

Rechargeable Lithium-ion Battery Pack

Manufacturer

Formosa Electronic Industries Inc.

5F , No.8 Lane 130 , Min Chuan Road , Hsin Tien City

Taipei Hsien , Taiwan

Tel : 886-2-22188888 , 2218-7688

Fax : 886-2-2218-8889 , 2218-0889

Factory

Kunshan MILLION GOLD TianYu Trading Company Limited.

3rd floor , building 6, Jinyang east road No. 333 ,Kunshan Jiangsu

P.R.China (215331)

Tel : (0512) 82600088

Fax : (0512) 82600188

2. Material And Ingredients Information

Manufacture	Type	Capacity	Lithium content (g)/Cell	Power	Forbid materials
LG	INR18650F1L	9300mAh	2.79 g	135.04 Whr	None

3. Composition / Information on Ingredients

Hazardous Ingredients	%	CAS Number
Nickel compound	0-25	1313-99-1
Manganese compound	0-15	1313-13-9
Cobalt compound	4-50	1307-96-6
Styrene-Butadiene-Rubber	<1	27288-99-9
Polyvinylidene Fluoride (PVDF)	<5	24937-79-9
Aluminum Foil	2-10	7429-90-5
Copper Foil	2-10	7440-50-8
Graphite	10-30	7782-42-5
Electrolyte (Ethylene carbonate)	10-20	96-49-1
Lithium hexafluorophosphate	<5	21324-40-3
Stainless steel, Nickel and inert materials	Remainder	N/A

3. Hazards Identification

Primary routes of entry : Skin contact , Skin absorption , Eye contact , Inhalation and 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

4. First Aid Measures

Ingestion : If Swallowed. Obtain medical attention immediately.

Inhalation : Leave area immediately and seek medical attention.

Eye contact : Rinse eyes with water for 15 minutes and seek medical attention.

Skin contact : Wash area thoroughly with soap and water and seek medical attention.

Ingestion : Drink milk/water and induce vomiting ; seek medical attention

IF exposure to internal materials within cell due to damaged outer casing ,

The following actions are recommended.

5. Fire Fighting Measures

Extinguishing media : Use extinguishing media suitable for the materials that to burn.

Firefighting equipment : Use NIOSH/MSHA 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 controls : Keep away from heat and open flame. Store in a cool

dry place.

Personal Protection :

Respirator : Not required during normal operations. SCBA required in the event of a fire.

Eye/Face protection : Not required beyond safety practices of employer.

Gloves : Not required for handling of battery

Foot protection : Steel toed shoes recommended for large container handling

9. Stability And Reactivity

Reactivity : None

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

Conditions to avoid : Avoid exposure to heat and open flame. Don not puncture , crush or incinerate.

10. Toxicological Information

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

11. Ecological Information

Lead and its compounds can pose a threat if released to environment. See waste disposal method in 12.Disposal Considerations.

12. Disposal Considerations

Recommended methods for safe and environmentally preferred disposal :
Product (waste from residues)

Do not throw out a used battery pack. Recycle it through the recycling company.

Contaminated packaging

Neither a container nor packing is contaminated during normal use. When internal materials leaked from a battery pack contaminates , dispose as industrial wastes subject to special control.

13. Transport Information

Lithium ion batteries containing no more than 1.5g/cell and 8g/battery pack of lithium can be treated as “ Non-dangerous goods” under the United Nations recommendations on the Transport of Dangerous Goods , Special provision 188 , provided that packaging is strong and prevent the products from short-circuit.

With regard to air transport , the following regulations are cited and considered :

- The International Civil Aviation Organization (ICAO) Technical Instructions (2019-2020 Edition)
- The International Air Transport Association (IATA) Dangerous Goods Regulations (61th Edition , Special Provisions A48, A88, A181, A154, A164 and A182 and Section II or IB of Packing Instruction 965、 966 or 967 for lithium ion batteries)
- The International Maritime Dangerous Goods (IMDG) Code (2018 Edition)
- The US Hazardous Materials Regulation (HMR) pursuant to a final rule issued by RSPA (Part 49 CFR Sections 100-185)
- The Office of Hazardous Materials Safety within the US Department of Transportation’ s (DOT) Research and Special Programs Administration (RSPA) , and
- The UN Recommendations on the Transport of Dangerous Goods Model Regulations and the Manual of Tests and Criteria.

Our products are properly classified , described , packaged , marked and labeled and are in proper condition for transportation according to all the applicable international and national governmental regulations ,not limited to the above mentioned. We further certify that the enclosed products have been tested and fulfilled the requirements and conditions in accordance with UN Recommendations 38.3 (T1-T8) on the Transport of Dangerous Goods Model regulations and the Manual of Testes and Criteria that can be treated as “ Non-Dangerous Goods” , UN No. 3480 or 3481.

14. Regulatory Information

OSHA Hazard communication standard (29 CFR 1910.1200)

 Hazardous ✓ Non-hazardous

15. UN Test Result

There is no hazards in accordance with the UN recommendations tests(Manual of Tests and Criteria , Part III , sub-section 38.3)

No	Item	Result	Remark
1	Altitude Simulation	PASS	
2	Thermal Shock	PASS	
3	Vibration	PASS	
4	Shock	PASS	
5	External Short	PASS	
6	Impact	PASS	
7	Overcharge	PASS	
8	Forced Discharge	N/A	For Cell

16. Physical/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