

MSDS

Product and Company Identification

Product Identification:

Lithium-Ion Rechargeable Battery Pack

P/N: BP17-002000

7.6V 3300mAh (25.08Whr) 2S1P

Manufacturer:

ETI CA Battery Inc.

5F, NO. 6, Lane 122, Gan-Yuan St., Sec.2, Shu-Lin Dist, New Taipei City,

Taiwan Tel: +886 2 2680 1603

Fax: +886 2 2668 9564

Issued or revised date: January. 1, 2021

Manufacturer date: January. 1, 2021

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**62st Edition of the IATA DGR in Handling and Storage party of MSDS****PRODUCT IDENTIFICATION**

P/N: BP17-002000

Lithium-ion Battery Pack.

MANUFACTURER

ETI CA Battery Inc.

5F, NO. 6, Lane 122, Gan-Yuan St., Sec.2, Shu-Lin Dist, New Taipei City, Taiwan

Tel: +886 2 2680 1603

Fax: +886 2 2668 9564

E-mail : alden.lu@eticabattery.com

2. COMPOSITION INFORMATION

Battery Cell

HAZARDOUS INGREDIENTS	%	CAS NUMBER
Aluminum Foil	2-10	7429-90-5
Metal Oxide (proprietary)	20-50	
Polyvinylidene Fluoride (PVDF)	<5	24937-79-9
Copper Foil	2-10	7440-50-8
Carbon (proprietary)	10-30	7440-44-0
Electrolyte (proprietary)	10-20	
Stainless steel, Nickel and inert materials	Remainder	N/A

Battery: 25.08Whr BP17-002000

Circuit Module

COMMON CHEMICAL NAME	%	CAS NUMBER
Lead	1-2	7439-92-1
Mercury	0	7439-97-6
Chromium	0	7440-47-3

MATERIAL SAFETY DATA SHEET

Cadmium	0	7440-43-9
Plastic case and Si2O	60	N/A

Plastic Parts, Paints, Wiring and Socket

COMMON CHEMICAL NAME	%	CAS NUMBER
Lead	<0.1	7439-92-1
Nickel	<0.01	7440-02-0
CFCs	0	75-69-4
Polychlorinated Biphenyls	0	1336-36-3
Plastics and other compound	Remainder	N/A

3. COMMON CHEMICAL NAME

62st Edition of the IATA DGR in Handling and Storage party of
MSDS 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

INHALATION, EYE CONTACT, and SKIN CONTACT : Not a health hazard.

INGESTION

If swallowed, obtain medical attention immediately.

If exposure to internal materials within cell(pack) due to damaged outer casing, the following actions are recommended.

INHALATION

Leave area immediately and seek medical attention.

EYE CONTACT

MATERIAL SAFETY DATA SHEET

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.

5. FIRE FIGHTING MEASURES

GENERAL HAZARD

Cell is not flammable but internal organic material will burn if the cell is incinerated. 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 FIREFIGHTING INSTRUCTIONS

If possible, remove cell(s) from fire fighting area. If heated above 125°C, cell(s) can explode/vent.

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.

Package meet the IATA DG Regulation packing instruction 965 to 967 Section II request.

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

MATERIAL SAFETY DATA SHEET

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 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: NO	Teratogenicity: NO	Reproductive toxicity: NO	Acute toxicity: NO
-------------------	--------------------	---------------------------	--------------------

This product does not contain any kinds of the following substances and halogen-type flame retardants including Chlorine and Bromide type harmful flame retardants which are listed in Appendix of TCO documents and relevant international ECO requirements:

Polybromated Biphenyls	(PBB)
Polybromated Biphenyl Ethers	(PBBE)
Polybromated Biphenyl Oxides	(PBBO)

MATERIAL SAFETY DATA SHEET

Polybromated Diphenylethers (PBDE)
Polychlorinated Biphenyl (PCB)
Polychlorinated Diphenylethers (PCDE)
Tetrabromophenol A (TBBPA)
Asbestos, Antimonytrioxide, Dioxine

None of the following substances will be exposed, leaked, or emitted during transportation, storage or any operation and any temperature condition:

Chlorinated Fluorohydrocarbon (FCKW)
Acrylonitrile
Styrol
Phenol
Benzol
Mercury of greater than 0.0001 wt% for alkaline battery
Mercury of greater than 0.0005 wt% for other battery
Lithium content of greater than 0.5g/battery cell
Cadmium, lead, and other harmful heavy metal

And will comply with the regulation of 49 CFR (DOT regulation), International Air Transport Association (IATA), and Deuche Forschungsgemeinschaft (DFG) regarding concentrations of emitted substances.

This product does not contain mercury, cadmium and lithium-metal.

Mercury content: N/A

Lithium-metal content: < 1.5g

Cadmium content: N/A

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 bioaccumulative. 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: Nonregulated

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

14. Transport information

MATERIAL SAFETY DATA SHEET

ETI CA Battery Inc. Lithium Ion battery Packs are considered to be "Rechargeable batteries" and meet the requirements of transportation by the U.S. Department of Transportation(DOT), International Civil Aviation Administration(ICA0), International Air Transport Association(IATA) Dangerous Goods Regulations Section II of PACKING INSTRUCTION 965-967 and SPECIAL PROVISION A88, A99, A154, A164 and belongs to non-dangerous goods.

For the lithium ion battery, the Watt-hour is not more than 100Wh. Comply with all of the requirements set out in section II of packing instructions 965, 966, 967 and UN3480 for lithium ion batteries in the 62st edition of the IATA DGR.

15. regulatory information

OSHA hazard communication standard (29 CFR 1910.1200)

☐ Hazardous

☒ Non-hazardous

UN Test Result

Product and Company Identification

Product Identification:

Lithium-Ion Rechargeable Battery Pack / 2S1P.

Manufacturer:

ETI CA Battery Inc.

5F, NO. 6, Lane 122, Gan-Yuan St., Sec.2, Shu-Lin Dist, New Taipei City, Taiwan

Tel: +886 2 2680 1603

Fax: +886 2 2668 9564

Issued or revised date: January. 1, 2021

Substance Identification

Substance: Lithium Ion Battery

CAS number: 12190-79-3.

UN Class: Even classified as lithium batteries, they are exempted from Dangerous Goods

UN-Recommendations on the Transport of Dangerous Goods Model Regulations.
(ST/SG/AC. 10/1 Rev. 11)

****Lithium ion rechargeable cells are not subject to the UN Regulations if they meet the following provisions.**

The equivalent Lithium content calculated by 0.3 times of the rated capacity in Ampere-hour (Ah) is not more than 1.5g.

****Lithium ion rechargeable batteries are not subject to the UN Regulations if they meet the following provisions.**

The equivalent Lithium content is not more than 8g.

Composition :

2-1.Cases: PC and ABS : No dangerous

2-2.Printed Circuit Board Assembly : No dangerous

2-3.Lithium Ion Cell: VEKEN 425683PH 3220mAh * 2

Lithium cobalt oxide (Xn) 10—50%

Mixture of fluorinated inorganic (T,C) < 5%

Mixture of organic carbonate 10—30%

Certificate of UN test for Lithium ion battery

ETI Model:BP17-002000

Description: (1). Rated Voltage:7.6V

(2). Nominal Capacity: 3300mAh (25.08Wh)

(3). Lithium equivalent content:0.99g

Date: 2021/01/01

UN Test Result

No.	Manual of Tests and Criteria (38.3 Lithium batteries) Test description	Test Results	Remark
T1	Altitude Simulation Test	Pass	N/A
T2	Thermal Shock Test	Pass	N/A
T3	Vibration Test	Pass	N/A
T4	Shock Test	Pass	N/A
T5	External Short Circuit Test	Pass	N/A
T6	Impact Test	-	No need for pack
T7	Overcharge Test	Pass	N/A
T8	Forced Discharge Test		No need for pack

We declare that the above-mentioned test is the result of being checked according to UN test.
(Manual of Tests and Criteria Rev5, Part III, sub-section 38.3)

We remain available to provide any other information that you may require.

Sincerely,

Steven Hou

Engineering Assistant Manager / ETI CA Battery Inc.

IATA/UN TransportationRevised by the Recommendations of the Transport
of Dangerous Goods, Manual of Test and Criteria

Date: January. 1, 2021

Model: BP17-002000

Description: Rechargeable lithium-ion battery rated voltage 7.6V nominal
capacity 3300mAh**Package Drop****Test ETI Model: BP17-002000**

No.	Test description	Remark	Test Results
1	Package Drop Test	The package shall be dropped from 1.2M high onto a concrete surface (Flat and Horizontal) with five orientations: 1 st for Flat of the bottom side 2 nd for Flat of the top side 3 rd for Flat of the right side 4 th for Flat of the left side 5 th for the corner	Pass

We declare that the above-mentioned test is the result of being checked according to UN test.
(Manual of Tests and Criteria Rev5, Part III, sub-section 38.3)

We remain available to provide any other information that you may require.**Sincerely,****Steven Hou****Engineering Assistant Manager / ETI CA Battery Inc.**