

Service Manager Bulletin

TITLE:

LITHIUM-ION POLYMER BATTERY Safety Data Sheet for Shipping and Handling

GROUP: 31	NO: 005P	ISSUING DEPARTMENT:	CAR MARKET: United States	
REVISIONS:			ISSUE DATE: 2021-03-10	STATUS DATE: 2021-03-10
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This SDS is required for the shipping of the Lithium-ion battery. In this process, a copy of the SDS document must be on the outside of the shipment crate and a copy of it must be given to the FedEx driver.

Print pages 2 – 6 of this Service Manager Bulletin (SDS Document)

Safety Data Sheet

31473177

Polestar Automotive USA Inc.
1 Volvo Drive
Rockleigh, NJ 07647

Emergency
Telephone No.: **1-888-255-3924 (U.S., Canada,
Puerto Rico and the U.S. Virgin Islands)**

Revision Date: 2021-03-10

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Supersedes:

NOTE: Use the 24-Hour Emergency Telephone Numbers **only in the event of a chemical emergency involving a spill, leak, fire, exposure, or accident involving chemicals.** All non-emergency questions should be directed to Polestar Automotive USA Inc. at (800) 806-2504 (U.S.) or (800) 806-2507 (Canada) for assistance.

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME: LGCHEM P2.7 LITHIUM-ION POLYMER BATTERY PART NO: 31473177

MANUFACTURER: LG Chemical Limited
Twin Tower
Youido-Dong, Youngdeungpo-Ku
Seoul, Korea

EMERGENCY TELEPHONE
NUMBER: +82-2-3773-6730

2. HAZARDS IDENTIFICATION

Primary routes of entry

Skin contact: No

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.

Emergency overview: May explode in a fire, which could release hydrogen fluoride gas. Use extinguishing media suitable for materials burning in fire.

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients	%	CAS Number
Aluminum Foil	2-10	7429-90-5
Metal Oxide (proprietary)	20-50	
- Manganese	5-15	
- Nickel	3-6	
- Cobalt	3-6	
Polyvinylidene Fluoride (PVDF)	<5	24937-79-9
Copper Foil	5-20	7440-50-8
Carbon (proprietary)	10-20	7440-44-0
Electrolyte (proprietary)	10-20	
Aluminum, Copper plate and inert materials	Remainder	N/A

Lithium-equivalent Content: 7.72g (95.83 Watt)

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 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 fire-fighting instructions:	If possible, remove cell(s) from fire-fighting area. If heated above 150°C, cell(s) may explode/vent.
Fire-fighting 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.

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7. HANDLING AND STORAGE

Handling: No special protective clothing required for handling individual cells.
Storage: Recommend to store the cell in an environment with under 70% RH free from corrosive gas within in a temperature range of -20 to 35°C. A temperature of 60°C or higher will accelerate the deterioration of battery performance.

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 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 damaged, 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.

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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: Non-regulated.

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

14. TRANSPORT INFORMATION

UN No. 3480

Proper shipping name: Lithium-Ion Batteries

Class 9 packing group II
hazard label:

Miscellaneous

ICAO/IATA

Packing instruction: 965

Maximum gross weight per
package on passenger and
cargo aircraft:

5 kg

Maximum gross weight per
package on cargo only aircraft:

35 kg

Special provision:

A45, A88, A99

IMO

Packing instruction: P903

Special provision: 188, 230, 310, 957

EmS:

F-A, S-I

US DOT

This product is not subject to any other requirements of dangerous goods under 49 CFR 173.185 (Lithium Batteries and Cells).

15. REGULATORY INFORMATION

OSHA hazard communication

standard (29 CFR 1910.1200): Hazardous

This product is an article as defined by TSCA regulations, and is exempt from TSCA Inventory listing requirements.

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16. OTHER INFORMATION

For further information, see: For more information, consult the Technical Data Sheet (www.lgchem.com).

Sources of key data used to compile the datasheet:

Information contained in this safety data sheet is based on LG Chem owned data and public sources deemed valid or acceptable. The absence of data elements indicates, that no data meeting these requirements is available.

Further information:

This information is based on our present state of knowledge. It shall describe our products regarding safety requirements and shall not be construed as a guarantee or statement of condition and/or quality.