



U.S. Department  
of Transportation

**Pipeline and Hazardous  
Materials Safety  
Administration**

**December 13, 2022**

1200 New Jersey Avenue, SE  
Washington, DC 20590

DOT-SP 21438

**EXPIRATION DATE: 2024-11-30**

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: Samsung SDI Co., Ltd.  
Yongin, South Korea

US AGENT: Samsung SDI America  
San Jose, CA

2. PURPOSE AND LIMITATION:

a. This special permit authorizes the transportation in commerce of lithium ion batteries exceeding 35 kg by cargo-only aircraft. This special permit provides no relief from the Hazardous Materials Regulations (HMR) or the International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO TI) other than as specifically stated herein. The most recent revision supersedes all previous revisions.

b. The safety analyses performed in the development of this special permit only considered the hazards and risks associated with the transportation in commerce.

c. No party status will be granted to this special permit.

d. This special permit serves as an approval under Special Provision A99 of the ICAO TI and as a "Competent Authority Approval" as defined under 49 CFR § 107.1.

3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.

4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 172.101 Column (9B) in that the net weight of lithium batteries per package may exceed 35 kg.

Tracking Number: 2022094011

5. BASIS: This special permit is based on the application of Samsung SDI Co., Ltd. dated August 26, 2022, submitted in accordance with § 107.105 and the public proceeding thereon.
6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Lithium ion batteries <i>including lithium ion polymer batteries</i>	9	UN3480	N/A

7. SAFETY CONTROL MEASURES:

a. SAFETY CONTROLS:

- (1) Authorized batteries are of model MS2414L101A, with a kWh rating of 24.14, and has a maximum weight of 130 kg.
- (2) Authorized lithium ion cells are of model CP1495L101, with a Wh rating of 548.3, and has a maximum weight of 2.
- (3) The state of charge for lithium ion battery packs must be not more than 30% when offered for aircraft transportation.
- (4) Each battery pack must be equipped with a battery management system capable of preventing overcharge, short-circuiting, and over discharge.
- (5) Each battery packs must be equipped with a means of preventing dangerous reverse current flow for cells connected in parallel.
- (6) Cells and battery modules must be protected against short-circuiting.

b. TESTING REQUIREMENTS:

- (1) Each cell within the battery module must be of a type tested in accordance with the UN Manual of Tests and Criteria, 7<sup>th</sup> Revised Edition.
- (2) Each battery module within the battery pack must be of a type tested in accordance with the UN Manual of Tests and Criteria, 7<sup>th</sup> Revised Edition.

c. PACKAGING REQUIREMENTS:

- (1) The battery pack must be packed in a UN 4C wooden box that meets Packing Group I performance criteria.
- (2) Not more than one battery pack is allowed per package;
- (3) The gross weight of the package may not exceed 185 kg (625 pounds); and
- (4) The net weight of the battery within the package may not exceed 130 kg.
- (5) Packaging must comply with the requirements in Packing Instruction 974 of the Supplement to the ICAO TI. Additionally, waste lithium battery assemblies and lithium battery assemblies being shipped for recycling or disposal are forbidden from air transport, and lithium battery assemblies must not be packed in the same outer packaging with substances and articles of Class 1 (explosives) other than Division 1.4S, Division 2.1 (flammable gases), Class 3 (flammable liquids), Division 4.1 (flammable solids), or Division 5.1 (oxidizers).

d. MARKING: Each package must be marked with the special permit number DOT-SP 21438 in accordance with § 172.301(c).

8. SPECIAL PROVISIONS:

- a. A person who is not a holder of this special permit who receives a package covered by this special permit may reoffer it for transportation provided no modification or change is made to the package and it is reoffered for transportation in conformance with this special permit and the HMR.
- b. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation.

9. MODES OF TRANSPORTATION AUTHORIZED: Cargo-only aircraft.

10. **MODAL REQUIREMENTS:** A current copy of this special permit must be carried aboard each aircraft used to transport packages covered by this special permit. The shipper must furnish a copy of this special permit to the air carrier before or at the time the shipment is tendered.
11. **COMPLIANCE:** Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:
- o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
  - o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
  - o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) —“The Hazardous Materials Safety and Security Reauthorization Act of 2005” (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term “exemption” to “special permit” and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

12. **REPORTING REQUIREMENTS:** Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR §§ 171.15 - Immediate notice of certain hazardous materials incidents, and 171.16 - Detailed hazardous materials incident reports. In addition, the grantee(s) of this

special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:

A handwritten signature in blue ink, appearing to read "Dan B.", is written over a faint, circular official stamp.

for William Schoonover  
Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Material Safety Administration, U.S. Department of Transportation, East Building PHH-13, 1200 New Jersey Avenue, Southeast, Washington, D.C. 20590.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at <https://www.phmsa.dot.gov/approvals-and-permits/hazmat/special-permits-search>. Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: ae