

November 20, 2023



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

DOT-SP 21245
(FIRST REVISION)

EXPIRATION DATE: 2027-10-31

(FOR RENEWAL, SEE 49 CFR 107.109)

1. **GRANTEE:** Rivian Automotive, LLC
Plymouth, MI

2. **PURPOSE AND LIMITATION:**

a. This special permit authorizes the transportation in commerce of lithium ion battery modules and battery packs in excess of 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 49 CFR § 173.185(b)(5) 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 and the ICAO TI.

4. **REGULATIONS FROM WHICH EXEMPTED:** 49 CFR § 172.101 Hazardous Materials Table Column (9B) in that lithium batteries may have a mass exceeding 35 kg per package when transported by cargo aircraft as specified herein.

5. **BASIS:** This special permit is based on the application of Rivian Automotive, LLC dated August 28, 2023, submitted in accordance with § 107.109.

Tracking Number: 2023085555

6. HAZARDOUS MATERIALS (49 CFR 172.101):

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

7. SAFETY CONTROL MEASURES:a. OPERATIONAL CONTROLS:

- (1) Only production lithium ion battery modules and battery packs, as described in the Rivian Automotive, LLC's application dated June 2, 2021 and additional information dated July 21, 2021 and on file with the Office of Hazardous Materials Safety (OHMS) may be offered for transportation under the terms of this special permit.
- (2) The nominal watt-hour rating of a battery module may not exceed 16 kWh.
- (3) Battery packs identified as "small," "mid-range," "mega-cell," and "new" battery packs have a nominal energy content as follows:
 - (i) Small – 100 kWh.
 - (ii) Mid-range – 130 kWh.
 - (iii) Mega-cell – 180 kWh.
 - (iv) New – 230 kWh.
- (4) The state of charge for lithium ion battery modules and battery packs must be not more than 30% when offered for aircraft transportation.
- (5) Each battery pack must be equipped with a battery management system capable of preventing overcharge, short-circuiting, and overdischarge.
- (6) Each battery module and battery pack must be equipped with a means of

preventing dangerous reverse current flow for cells connected in parallel.

(7) Cells, battery modules, and battery packs 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, 6th 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, 6th Revised Edition.

c. PACKAGING REQUIREMENTS:

(1) Battery Modules:

(i) Inner packaging: The battery module must be placed into an anti-static gusseted bag that completely encloses the module and then wrapped onto a fiberglass thermal blanket, with non-combustible, non-conductive cushioning material (polyethylene foam pad) placed on base and top.

(ii) Outer Packaging: The inner packaging must be placed in a UN Specification 4D plywood box tested to the packing group I performance standard.

(iii) The net weight of the battery module within the package may not exceed 90 kg (199 pounds).

(2) Battery Packs:

(i) Each battery pack must have a mass of 12 kg or greater and must have a strong, impact-resistant outer aluminum casing.

(ii) The battery pack must be packed in a strong impact-resistant outer packaging consisting of a custom-made palleted wooden crate.

(iii) The net weight of the battery pack within the package may not exceed 1,600 kg (3,527 pounds).

(3) Not more than one battery module or battery pack is allowed per package.

(4) Packaging must comply with the requirements in Packing Instruction 974 of the Supplement to the ICAO TI. Additionally, waste lithium battery modules

and lithium battery packs being shipped for recycling or disposal are forbidden from air transport, and lithium ion battery modules and battery packs 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 21245 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 or its contents 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.

c. This special permit in no way affects the need to obtain any required authorizations from other agencies of the United States Government or from the competent authorities of countries of origin, transit, destination, and State of Operator.

d. The grantee must maintain a record of all activity conducted under the authority granted in this special permit and upon request make this information available to DOT representatives or enforcement officials. The record must contain a listing and number of shipments made to include:

- (1) Dates of shipment; and
- (2) Description of each type of shipment.

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.:



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: KH