



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

March 31, 2025

1200 New Jersey Avenue, SE
Washington, DC 20590

DOT-SP 20654
(THIRD REVISION)

EXPIRATION DATE: 2029-02-28

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: Clarios Advanced Solutions LLC
Milwaukee, WI
2. PURPOSE AND LIMITATION:
 - a. This special permit authorizes the transportation in commerce of prototype and low production lithium ion batteries that have not completed all U.N. tests. 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 A88 and State Variation US 3 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 and the ICAO TI.

Tracking Number: 2024125369

4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR 173.185(a)(1) in that each lithium cell or battery must be of the type proven to meet the criteria in Part III, subsection 38.3 of the UN Manual of Tests and Criteria, except as specified herein.
5. BASIS: This special permit is based on the application of Claris Advanced Solutions, LLC dated December 23, 2024, submitted in accordance with § 107.109.
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. OPERATIONAL CONTROLS:

- (1) Only prototype and low production lithium ion batteries may be offered for transportation under the terms of this special permit. ("Low production" is defined as a production run of no more than 100 batteries annually of a particular type.) Each different battery type must comply with all the conditions of this special permit prior to being offered for transportation.
- (2) A battery (with a maximum nominal voltage rating of 84 V) is comprised of twenty (20) cells each with a maximum capacity of 20 Ah.
- (3) The state of charge for prototype and low production lithium ion batteries may not exceed 30% when offered for transportation.
- (4) Cells and batteries must be protected against short circuiting.
- (5) The battery must be equipped with an effective means of preventing dangerous reverse current flow when cells are connected in parallel.

b. TESTING AND INSPECTION FOR EACH TYPE:

- (1) Each different cell and battery type must be subjected to the following tests:

(i) For cells of a type that have not been demonstrated by testing to pass all required tests as specified in the “UN Manual of Tests and Criteria, 6th Revised Edition,” three cells must be stored at $55^{\circ}\text{C} \pm 2^{\circ}\text{C}$ for at least 48 hours followed by a short circuit test (connecting a conductor across the positive and negative terminals and maintaining this short circuit for at least 1 hour after the case temperature has returned to $55^{\circ}\text{C} \pm 2^{\circ}\text{C}$); and

(ii) One battery assembled from the cells of a type that have not been demonstrated by testing to pass the required tests as specified in the “UN Manual of Tests and Criteria, 6th Revised Edition” must be stored at $55^{\circ}\text{C} \pm 2^{\circ}\text{C}$ for at least 48 hours followed by a short circuit test (connecting a conductor across the positive and negative terminals and maintaining this short circuit for at least 1 hour after the case temperature has returned to $55^{\circ}\text{C} \pm 2^{\circ}\text{C}$); or

(iii) If batteries comprise cells of a type that have been demonstrated by testing to pass all required tests as specified in the “UN Manual of Tests and Criteria, 6th Revised Edition,” a battery of a specific type must be subjected to a short circuit test (connecting a conductor across the positive and negative terminals and maintaining this short circuit for at least 1 hour), which may be conducted at a temperature range between room temperature (approximately 23°C) and $55^{\circ}\text{C} \pm 2^{\circ}\text{C}$.

(2) Cells and batteries are considered safe to transport under the terms of this special permit if the cells and batteries show no disassembly or fire after completion of these tests. A cell or battery type that has not passed these tests is not authorized to be offered for or transported under the terms of this special permit.

c. PACKAGING REQUIREMENTS:

(1) Inner packaging: Each battery must be individually packed in an inner packaging that completely encloses the battery and must be surrounded by cushioning material that is non-combustible, and non-conductive;

(2) Outer packaging: The inner packagings must be further packaged in a UN-Standard 4D plywood box meeting Packing Group I performance requirements in accordance with ICAO TI Packing Instruction 910 of the Supplement;

(3) Batteries having a mass of 12 kg or greater and having a strong, impact-resistant outer casing may be packed in strong outer packagings or in protective enclosures (for example, in fully enclosed or wooden slatted crates);

(4) The outer packaging may not contain more than three inner packagings;
and

(5) The net weight of a battery may not exceed 15 kg with a gross weight not exceeding 35 kg.

d. MARKING REQUIREMENTS: Each package, and overpack if used, prepared under the provisions of this special permit must be plainly marked with the special permit number: "DOT-SP 20654".

8. SPECIAL PROVISIONS:

a. Under the terms of this special permit, the grantee may only offer hazardous materials (i.e., the grantee is not authorized as a carrier).

b. 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, ICAO TI, and the HMR.

c. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation.

d. 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, and destination.

e. For each cell and battery type, the grantee must maintain the following record and upon request make this record available to DOT representatives or enforcement officials. The record to be maintained is as follows:

(1) A description of each cell and battery type and types of tests conducted and test results prior to offering for transportation.

(2) Dates and description of each shipment, to include number of cells and batteries.

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: Casey Chambers