



U.S. Department  
of Transportation

**Pipeline and Hazardous  
Materials Safety  
Administration**

**June 07, 2024**

1200 New Jersey Avenue, SE  
Washington, DC 20590

DOT-SP 21758

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

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: Bolloré Logistics Germany GmbH  
Munich Airport, Germany

U.S. AGENT: ShipMate, Inc.  
Sisters, OR

2. PURPOSE AND LIMITATIONS:

a. This emergency special permit authorizes the transportation in commerce of the satellite transport container (STC) containing the satellite assembly that includes non-DOT specification containers containing certain Division 2.2 compressed gases identified in paragraph 6 of this special permit and prototype lithium ion battery which has not been tested in accordance with Part III of Section UN 38.3 of the UN Manual of Tests and Criteria. 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 Provisions 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.

Tracking Number: 2024045036

4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.185(a)(1) in that each lithium battery need not be of the type proven to meet the criteria in Part III, subsection 38.3 of the UN Manual of Tests and Criteria; §§ 172.300 and 172.400 and 5.2 and 5.3 of the ICAO TI in that marking and labeling of the packagings contained within the satellite is not required; § 173.301(f) in that the non-DOT specification packaging is not fitted with a pressure relief device; and § 173.302(a)(1) in that non-DOT specification packaging is not authorized, except as specified herein.
5. BASIS: This emergency special permit is based on the application of Bolloré Logistics Germany GmbH dated April 26, 2024, and supplemental information dated May 8, 2024, submitted in accordance with § 107.117 and the determination it was necessary to prevent significant economic loss.
6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous Material Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Lithium ion batteries contained in equipment <i>including lithium ion polymer batteries</i>	9	UN3481	N/A
Articles containing non-flammable, non-toxic gas, n.o.s. (contains helium)	2.2	UN3538	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING: Prescribed packaging is a non-DOT specification packaging which is packaged as follows:

- (1) Each battery and pressure vessel must be contained in equipment (satellite) designed for space application and constructed of suitable material of adequate strength and design.
- (2) The equipment (satellite) containing the battery and the pressure vessels must be placed in a rigid and fully encased, specially designed non-DOT specification packaging (satellite transport container-STC) as described in the April 26, 2024, submission and on file with the Office of Hazardous Materials Safety (OHMS).

- (3) The aggregate net weight of three (3) batteries within each package must not exceed 12.1 kg (26.7 pounds).
- (4) Helium tank. There is one non-DOT specification carbon composite overwrapped vessel (COPV) with titanium alloy (Ti6AL4V) welded liner. It has a nominal volume of 50 liters and maximum expected operating pressure (MEOP) of 310 bar. It is proof pressure tested to 387.5 bar (1.25xMEOP) and has a minimum burst pressure of 465 bar. The tank is filled to not more than 116 bar during transport.
- (5) Fuel tanks. There are two tanks: one for monomethyl hydrazine (MMH), the propulsion fuel and one for the oxidizer, MON. These tanks are of welded titanium alloy (Ti6AL4V) construction. Each has a volume of 248.7 liters and MEOP of 22 bar. They are proof pressure tested to 27.5 bar (1.25xMEOP). Neither is charged to not more than 2 bar (abs) with helium or contains any residue, so they are not subject to regulation as dangerous goods in transportation. These tanks are only filled when on the launch pad.
- (6) Helium piping system (articles containing non-flammable gas, n.o.s.). The piping system associated with the propulsion system will be filled with helium to not more than 2 bar when in transportation. The piping system is tested hydraulically to failure after going through cyclic loading and unloading. The minimum burst pressure is 1100 bar.

b. TESTING:

- (1) Each cell within the battery must be of a type tested as follows:
  - (i) SAFT VES16 cells, in accordance with the UN Manual of Tests and Criteria 5<sup>th</sup> Revised Edition.
  - (ii) GOMSpace cells, in accordance with the flight acceptance test per NASA, RP-08-75, REV. 1.0 and JSC66548.
  - (iii) LG INR18650MJ1 cells, in accordance with the UN Manual of Tests and Criteria 5<sup>th</sup> Revised Edition.
- (2) The battery may not be of a type tested in accordance with the UN Manual of Tests and Criteria except for the following:
  - (i) OHBI-HERA battery comprising of SAFT cells: The battery must have passed the selective testing including thermal vacuum cycling testing (S-1964-22) as described in the April 26, 2024, application and which is on file with the OHMS.

(ii) GOMSpace battery comprising of GOMSpace: The battery must be of a type tested in accordance with the UN Manual of Tests and Criteria, 7<sup>th</sup> Revised Edition.

(iii) LG battery needs not be UN-tested because it is a single cell battery.

c. OPERATIONAL CONTROLS:

(1) Only prototype and low production lithium ion batteries contained in equipment as described in the application of Bolloré Logistics Germany GmbH dated April 26, 2024, and on file with the OHMS may be offered for transportation under the terms of this special permit. ("Low production" is defined as a production run of not more than 100 cells or batteries annually of a particular type.)

(2) The Watt-hour rating of each battery contained in equipment comprised of 64 SAFT cells, 8 GOMSpace cells, and 1 LG cell may not exceed nominal energy of 1180.8 Wh, 86 Wh, and 14.3 Wh, respectively.

(3) There must be not more than an aggregate of three (3) batteries contained in equipment within a STC.

(4) The GOMSpace battery contained in equipment must be offered for air transportation at a state of charge not exceeding 30 percent.

(5) The batteries must be equipped with an effective means of preventing dangerous reverse current flow for the batteries in which the cells are connected in parallel.

(6) Cells and batteries must be protected against short circuiting.

(7) Emergency response information provided with the shipment and available via an emergency response telephone number must indicate that certain packagings within the transport container are not fitted with pressure relief devices and provide appropriate guidance in case of fire exposure.

(8) Transportation of the satellite contained in the transport container is authorized for the one-way movement via cargo-only aircraft from Germany to Florida.

d. MARKING: The outer STC must be plainly and durably marked on two opposite sides in letters at least 2 inches in height on a contrasting background, "DOT-SP 21758" and "DO NOT STACK" as specified in § 172.301(c).

8. SPECIAL PROVISIONS:

a. A person who is not a holder of this special permit, but receives a packaging covered by this special permit, may reoffer it for transportation provided no modification or change is made to the packaging and it is offered 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, and destination and State of the Operator.

d. The special permit holder must maintain a record of all activity conducted under the authority granted in this special permit. The record must contain a complete listing and number of shipments made to include and upon request make this information available to a DOT representative or an enforcement official. 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: Motor vehicle, and cargo-only aircraft.

10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each aircraft or motor vehicle 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 Materials 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: SH/TG