



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

November 07, 2022

1200 New Jersey Avenue, SE
Washington, DC 20590

DOT-SP 21351
(FIRST REVISION)

EXPIRATION DATE: 2024-02-29

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: Bolloré Logistics Germany GmbH
Frankfurt Am Main, Germany

US AGENT: ShipMate, Inc.
Sisters, OR

2. PURPOSE AND LIMITATIONS:

a. This special permit authorizes the transportation in commerce of prototype and low production lithium ion batteries contained in equipment (spacecraft) that have not completed all UN tests and exceed 35 kg net weight by cargo-only aircraft and articles containing non-flammable, toxic gas, n.o.s. (contains ammonia, anhydrous) within the equipment in specially designed transport containers (STC). This special permit provides no relief from the Hazardous Materials Regulations (HMR), the International Maritime Dangerous Goods (IMDG) Code 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 development of this special permit only considered the hazards and risks associated with transportation in commerce. The safety analyses did not consider the hazards and risks associated with consumer use, use as a component of a transport vehicle or other device, or other uses not associated with transportation in commerce.

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

- d. This special permit serves as an “exemption” as defined in 7.9.1 of the IMDG Code, an approval under Special Provisions A88 and A99 and State Variation US 3 of the ICAO TI, Supplement Doc 9284 AN/905, A333 of the ICAO TI and as a “Competent Authority Approval” as defined under 49 CFR § 107.1
- e. This special permit serves as an exemption to the ICAO TI for the transportation of Articles containing toxic gas, n.o.s. (contains Ammonia, anhydrous) UN3539 aboard cargo aircraft. For international flights, the ICAO TI may require exemption authorization by the States of origin, transit, overflight, and destination of the consignment, as well as the State of the air operator.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171- 180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR 49 CFR § 172.101 Hazardous Materials Table, Column (9B) in that lithium batteries may not have a mass exceeding 35 kg per package; 49 CFR § 173.185(a)(1) in that lithium ion batteries must have passed the criteria in Part III, subsection 38.3 of the UN Manual of Tests and Criteria; § 173.185(e)(7) in that alternate packaging is not authorized; § 172.101 Hazardous Materials Table Column (9B) in that Articles containing toxic gas, n.o.s.(contains Ammonia, anhydrous) UN3539 are forbidden aboard cargo aircraft; Subparts D and E of Part 172 in that marking and labeling of the packaging (pressure vessel) contained within the spacecraft is required; § 173.301 (f) in that the pressure vessel within the equipment must be fitted with a pressure relief device; and § 173.302a(a)(1) in that non-DOT specification packaging is not authorized, except as specified herein.
5. BASIS: This special permit is based on the application of Bolloré Logistics Germany GmbH dated July 4, 2022, submitted in accordance with § 107.105 and the public proceeding thereon.

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 toxic gas, n.o.s (contains Ammonia, anhydrous)	2.3	UN3539	N/A

* Division 2.3 for international transportation. Division 2.2 as an alternate when only domestic transportation is involved.

7. SAFETY CONTROL MEASURES:

a. PACKAGING: Prescribed packagings are non-DOT specification packagings (specially designed transport containers – STC) which are packaged as follows:

(1) Each battery and all pressure vessels (Articles containing toxic gas, n.o.s.) must be contained in equipment (spacecraft) designed for space application and constructed of suitable material of adequate strength and design.

(2) The equipment containing the battery and pressure vessels must be placed in a rigid and fully encased, specially designed non-DOT specification packaging (STC or outer transport container) as described in the March 17, 2022 submission on file with the Office of Hazardous Materials Safety (OHMS).

(3) The aggregate net weight of the battery, which is comprised of 3 modules, each having 144 SAFT VES16 cells (24S6P), is 82 kgs (181 pounds).

b. TESTING:

(1) Each cell within the battery must be of a type tested in accordance with the UN Manual of Tests and Criteria, 5th Revised Edition.

(2) The battery may not be of a type tested in accordance with the UN Manual of Tests and Criteria.

(3) The filled heat pipes within the refrigeration system must be tested by maintaining at a temperature of above 125 °C and test pressure of 150 bar (2176 psig) for 30 minutes.

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 March 17, 2022 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 module and battery contained in equipment may not exceed nominal energy of 2.304 kWh and 6.912 kWh, respectively.

(3) There must be not more than one (1) battery contained in each equipment.

(4) All batteries contained in equipment must be offered for 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 that contain cells connected in parallel.

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

(7) Transportation of the spacecraft contained in the transport container (STC) is authorized for the one-way movement from Germany to Vandenberg Air Force Base, Lompoc, California.

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

(9) Only one battery (6.912 kWh) contained in equipment may be packed in an outer transport container.

(10) The number of heat pipes (pressure vessels) within the equipment must not exceed those specified in the supplemental information dated October 12, 2022, and the aggregate amounts of anhydrous ammonia may not exceed 1.34 kg (3 pounds).

(11) The heat pipes within the equipment must have been tested for leak proof at 150 bar (2175 psi) for 15 minutes.

d. MARKING: The outer transport container must be plainly and durably marked on two opposite sides in letters at least 2 inches in height on a contrasting background "DOT-SP 21351" 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.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, cargo vessel, and cargo-aircraft only.

10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each cargo vessel, cargo-only 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. The air operator must be authorized to transport hazardous materials forbidden by air.

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: Steve H/ae