



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

January 23, 2023

1200 New Jersey Avenue, SE
Washington, DC 20590

DOT-SP 21088
(SECOND REVISION)

EXPIRATION DATE: 2026-05-31

(FOR RENEWAL, SEE 49 CFR 107.109)

1. **GRANTEE:** LogBATT GmbH
Aichwald, Germany

US AGENT: Currie Associates, Inc.
Queensbury, NY

2. **PURPOSE AND LIMITATION:**

a. This special permit authorizes the manufacture, mark, sale, and use of packagings that vent for the transportation in commerce of damaged, defective, and recalled lithium cells or batteries as specified herein. This special permit also authorizes the packagings to be used for lithium cells and batteries specified in paragraph 7.b.(2). This special permit provides no relief from the Hazardous Materials Regulations (HMR) or the International Maritime Dangerous Goods (IMDG) Code 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. In accordance with 49 CFR 107.107(a), party status may not be granted to a manufacturing special permit. These packagings may be used in accordance with 49 CFR 173.22a.

d. This special permit serves as an approval under Paragraph (2) of Packing Instruction P911 of the IMDG Code 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 IMDG Code.

4. **REGULATIONS FROM WHICH EXEMPTED:** 49 CFR § 173.24(g) in that package venting is authorized.

5. **BASIS:** This special permit is based on the application of LogBATT GmbH, dated August 5, 2022, submitted in accordance with § 107.105 and the public proceeding thereon and additional information dated December 5, 2022.

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
Lithium ion batteries contained in equipment <i>including lithium ion polymer batteries</i>	9	UN3481	N/A
Lithium ion batteries packed with equipment <i>including lithium ion polymer batteries</i>	9	UN3481	N/A
Lithium metal batteries <i>including lithium alloy batteries</i>	9	UN3090	N/A
Lithium metal batteries contained in equipment <i>including lithium alloy batteries</i>	9	UN3091	N/A
Lithium ion batteries packed with equipment <i>including lithium alloy batteries</i>	9	UN3091	N/A

7. **SAFETY CONTROL MEASURES:**

a. **PACKAGING:**

(1) Prescribed packagings are multiple sizes and designs of trade-named packagings identified as XL-2+. XL-2, XL-1.3, L-2, and M-2 designed for the transportation of damaged, defective, or recalled lithium cells or batteries (DDRs) as described in LogBATT GmbH's applications dated May 24, 2022, and August 1, 2022, and on file with the Office of Hazardous Materials Safety (OHMS).

(2) The authorized packagings with the vent systems are UN specification packagings meeting Packing Group I performance criteria with the following designations:

Mode	XL-2+	XL-2	XL-1.3	L-2	M-2
UN designation	Equivalent to 50A	50A	50A	4A	4A
Max. allowed net weight for DDRs (kg)	1000	1000	800	350	30
Max. allowed nominal energy content for the aggregate of DDRs (kWh)	110	110	100	36	4

(3) Each inner packaging containing damaged, defective, or recalled lithium cells or batteries must be individually placed in an outer packaging.

b. OPERATIONAL CONTROL:

(1) Each model of packagings with a vent system must have been subjected to thermal runaway and packaging tests to ensure that the packagings are designed to be used in compliance with the requirements of §§ 173.24(g) and 173.185(b) and that the vent filter system performs the following functions as described in LogBATT GmbH's application dated July 10, 2020, and on file with the OHMS:

- (i) Heat insulation not to exceed the specified upper limit temperature (100 °C) in the outer casing during emergencies;
- (ii) Filtration of smoke to prevent exiting of flammable gas or smoke at the vent exit;
- (iii) Gas management to reduce the emission of poisonous gases such as HF gas to less than the AEGL-2 value (i.e., 24 ppm for 1 hour exposure for HF gas); and

(iv) No production of flames or no ejection of projectiles during emergencies.

(2) The packagings with the controlled vent system described in this special permit may also be used for the transportation of i) fully regulated lithium cells or batteries meeting the requirement in § 173.185(b), ii) lithium cells or batteries meant for disposal or recycling (see § 173.185(d)), and iii) low production runs of lithium cells or batteries and prototype lithium cells or batteries (see § 173.185(e)), provided:

(i) Fully regulated lithium batteries (see § 173.185(b)) must:

(A) Contain cells and batteries that have passed the tests in accordance with the UN Manual of Tests and Criteria, 6th Revised Edition; or

(B) Meet the requirement of Section 38.3.3 (f) or (g), as applicable, of the UN Manual of Tests and Criteria for batteries.

(ii) Fully regulated lithium cells (see § 173.185(b)) must have passed the tests in accordance with the UN Manual of Tests and Criteria, 6th Revised Edition.

(iii) When low production runs of lithium batteries and prototype lithium batteries (see § 173.185(e)) contain lithium cells that are not low production runs of lithium cells or prototype cells, the lithium cells must have passed the tests in accordance with the UN Manual of Tests and Criteria, applicable Revised Edition incorporated by reference (see § 171.7).

(3) The maximum net weights permitted in the table in paragraph 7.a.(2) apply to packages containing the cells or batteries identified in paragraph 7.b.(2).

(4) The confined spaces in the transportation vehicles or the cargo transport units (CTUs) must have adequate ventilation not to have accumulation of gases vented from the packaging by having an air exchange rate of at least six times per hour.

(5) Transportation and packagings must be in compliance with all other applicable regulatory requirements including packaging performance tests, hazard communication (e.g., marking), and special permits for the packagings sufficiently filled with thermally insulating, fire-suppressing, non-conductive, absorbent, and cushioning granules or pillows.

(6) Each package must be marked "DOT-SP 21088" in accordance with § 172.301(c).

(7) Closed vehicles or the CTUs may be equipped with a cooling unit.

(8) The CTU containing the package(s) must be securely locked and ventilated during carriage.

(9) Packages must not be stacked in the CTU and must be stowed in the CTU in a manner so they are easily accessible.

8. **SPECIAL PROVISIONS:**

a. In accordance with the provisions of Paragraph (b) of § 173.22a, persons may use the packaging authorized by this special permit for the transportation of the hazardous materials specified in paragraph 6, only in conformance with the terms of this special permit.

b. A person who is not a holder of this special permit, but 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 offered for transportation in conformance with this special permit, the HMR, and the IMDG Code.

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

d. Each packaging manufactured under the authority of this special permit must be either (1) marked with the name of the manufacturer and location (city and state) of the facility at which it is manufactured or (2) marked with a registration symbol designated by the Office of Hazardous Materials Safety for a specific manufacturing facility.

e. A current copy of this special permit must be maintained at each facility where the packaging is manufactured under this special permit. It must be made available to a DOT representative upon request.

f. 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.

9. **MODES OF TRANSPORTATION AUTHORIZED:** Motor vehicle, rail freight, and cargo vessel (see paragraph 7.b.(5) for possible restrictions).

10. **MODAL REQUIREMENTS:**

- a. A current copy of this special permit must be carried aboard each cargo vessel or motor vehicle used to transport packages covered by this special permit.
- b. When transported by cargo vessel, the package must be stowed on deck under stowage category D, following segregation codes SG7, SG14, SG29, SG50, SG57, and SG63, and following stowage codes: SW1, SW2, and SW3.

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: HWANG