

May 10, 2021



U.S. Department  
of Transportation

East Building, PHH-30  
1200 New Jersey Avenue S.E.  
Washington, D.C. 20590

**Pipeline and Hazardous  
Materials Safety Administration**

DOT-SP 20989  
(SECOND REVISION)

**EXPIRATION DATE: 2022-02-28**

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: DGM Italia SRL  
Vignate, Italy

US AGENT: Currie Associates, Inc.  
Queensbury, NY

2. PURPOSE AND LIMITATION:

a. This special permit authorizes the transportation in commerce of low production lithium ion batteries contained in equipment. This special permit provides no relief from the Hazardous Materials Regulations (HMR) or the International Civil Aviation Organizations Technical Instructions (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 "exemption" as defined in 1;3.1.1 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.

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4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.56(b) in that a Class 1 material contained in the spacecraft does not meet packaging requirements specified in the classification approval (EX2011031882); and § 173.185(a) and 2;9.3.1 a) of the ICAO TI in that the batteries are not of a type proven to meet the requirements of the UN Manual of Tests and Criteria, Fifth Revised Edition.
5. BASIS: This special permit is based on the application of DGM Italia SRL dated May 27, 2020 and submitted in accordance with § 107.105 and the public proceeding thereon and additional information dated December 18, 2020.
6. HAZARDOUS MATERIALS (49 CFR 172.101):

<b>Hazardous Materials Description</b>			
<b>Proper Shipping Name</b>	<b>Hazard Class/ Division</b>	<b>Identification Number</b>	<b>Packing Group</b>
Lithium ion batteries contained in equipment*	9	UN3481	N/A
Substances, explosive n.o.s. (ammonium dinitramide)**	1.4S	UN0481	N/A
Liquefied gas, n.o.s. (1,1,1,3,3,3-Hexafluoropropane, R236fa)	2.2	UN3163	N/A
Refrigerant gas, R134a	2.2	UN3159	N/A

\*Only low production lithium ion batteries contained in equipment (satellite) ("Low production" is defined as a production run of no more than 100 cells or batteries annually of a particular type) may be offered for transportation and transported under the terms of this special permit.

\*\*ADN solution, LPM-103S, approved under EX2011031882.

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8. SAFETY CONTROL MEASURES:

a. Safety Controls:

(1) The battery (maximum energy rating of 124 Wh) is comprised of Molicel ICR-18650J lithium ion cells and is contained within the Argomoon Propulsion System satellite or LICIAcube satellite.

(2) The battery must be equipped with an effective means of preventing dangerous reverse current flow when cells are connected in parallel.

(3) The state of charge for lithium ion batteries contained in satellites must not be more than 30% when offered for transportation.

(4) Not more than 420 g of ADN (ammonium dinitramide) solution, LMP-103S, may be contained within the Argomoon Propulsion System satellite.

(5) Not more than 214 g of R134a (UN3159) may be in a dedicated tank, compliant with transportation regulations, contained in the Argomoon Propulsion System satellite, reaching a storage pressure of 244 psi at 60 °C.

(6) Not more than 1,260 g of R236fa (UN3163) may be in a tank compliant with transportation regulations in the LICIAcube satellite, at a storage pressure of 100 psi at 55 °C.

b. Testing Requirements:

(1) All lithium ion cells must be of a type proven to meet the criteria in part III, sub-section 38.3 of the UN Manual of Tests and Criteria, Fifth Revised Edition.

(2) All lithium ion batteries must be of a type as described in DGM Italia SRL's application dated December 20, 2019, and on file with the Office of Hazardous Materials Safety Approvals and Permits Division (OHMSAPD).

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c. Packaging Requirements:

(1) The Argomoon Propulsion System satellite and LICIACube satellite must be packaged within a rotomolded polyethylene container designed and tested to meet the ATA 300-revision 2008.1 specification.

(2) The battery contained in equipment must be protected against short-circuiting.

(3) A package may contain not more than one (1) battery contained in equipment.

(4) The net weight of the battery, contained in equipment, within a package may not exceed 1 kg.

d. MARKING: Each package or over pack if used must be marked with the special permit number, "DOT-SP 20989", in accordance with § 172.301(c).

9. 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 and it is reoffered for transportation in conformance with this special permit, the HMR, and the ICAO TI.

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 the States of origin, transit, over flight, and destination of the consignment, as well as the State of the air operator.

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e. 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.

10. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, and cargo-only aircraft.
11. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each aircraft and 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.
12. 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.

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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.

13. 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-30, 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