



U.S. Department  
of Transportation

**Pipeline and Hazardous  
Materials Safety  
Administration**

**March 29, 2024**

1200 New Jersey Avenue, SE  
Washington, DC 20590

DOT-SP 14981  
(FIFTH REVISION)

**EXPIRATION DATE: 2028-01-31**

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: Eclipse Aerospace, Inc.  
Albuquerque, NM
2. PURPOSE AND LIMITATIONS:
  - a. This special permit authorizes the manufacture, mark, sale, and use of non-DOT specification cylinders for use as fire extinguishing canisters (FEC) installed on aircraft. The cylinders are authorized for the transportation in commerce of the hazardous materials authorized by this special permit. This special permit provides no relief from the Hazardous Materials Regulations (HMR) 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. 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.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.335(a) in that a non-DOT specification cylinder is not authorized, except as provided herein.
5. BASIS: This special permit is based on the application of Eclipse Aerospace, Inc. dated December 13, 2023, 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
Chemical under pressure, corrosive, n.o.s. (phosphorus tribromide, nitrogen, and helium)	2.2	UN3503	N/A

The fire extinguishing canisters authorized herein may include installed actuating cartridges (cartridges, power device of Division 1.4C or 1.4S), without changing the classification of Division 2.2 provided the aggregate quantity of deflagrating (propellant) explosives does not exceed 3.2 grams per extinguishing unit. The actuating cartridges must be approved by the Associate Administrator for Hazardous Materials Safety.

7. SAFETY CONTROL MEASURES:

- a. PACKAGING: Packaging prescribed is a non-DOT specification cylinder described as a Fire Extinguishing Canister (FEC) for installation on aircraft for the control of engine nacelle fires. The FEC must be in accordance with Eclipse Aviation Drawing No. 26-123127-1001 and the Eclipse Aerospace, Inc. application for special permit on file with the Office of Hazardous Materials Safety (OHMS). The FEC must be designed and manufactured in accordance with the requirements for a DOT Specification 39, except as follows:

§ 178.65(b) *Material*. The cylinder must be constructed of Type 304L stainless steel with the following composition (wt%):

Material	Wt%
Carbon (max.)	0.03
Manganese (max.)	2.00
Phosphorus (max.)	0.04
Sulfur (max.)	0.03
Silicon (max.)	1.00
Nickel	8.0 – 11.0
Chromium	18.0 – 20.0

The burst disk, which forms a part of one end of the cylinder, must be constructed of Inconel 600 with the following composition (wt%):

Material	Wt%
Carbon (max.)	0.10
Manganese (max.)	1.00
Sulfur (max.)	0.015
Silicon (max.)	0.50
Copper (max.)	0.50
Chromium	14.0 – 17.0
Iron	6.0 – 10.00
Nickel	72.0 min

§ 178.65(e) *Openings and attachments*. Openings and attachments are not required to be on the cylinder heads. Openings must be as shown on Eclipse Aviation Drawing No. 26-123127-1001 on file with OHMS.

§ 178.65(g) *Flattening test*. No flattening test is required.

§ 178.65(i) *Markings*.

(1) \* \* \*

(2)

(i) DOT-SP 14981 must be marked in lieu of DOT-39.

\* \* \*

b. **OPERATIONAL CONTROLS:** Each fire extinguishing canister (FEC) shipped under this special permit must be shipped in a non-bulk strong outer packaging.

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 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 offered for transportation in conformance with this special permit 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. 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. Each strong outer packaging containing fire extinguishers authorized under this special permit must be marked "INSIDE CONTAINERS COMPLY WITH DOT-SP 14981".

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