



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

May 14, 2025

1200 New Jersey Avenue, SE
Washington, DC 20590

DOT-SP 21023
(SECOND REVISION)

EXPIRATION DATE: 2026-05-31

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: Tire Seal, Inc. dba TSI Supercool
Lake Worth, FL
2. PURPOSE AND LIMITATIONS:
 - a. This special permit authorizes the manufacture, mark, sale, and use of certain non-DOT specification inner containers 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 § 173.304(d) in that a non-DOT specification inside containers are authorized, as specified herein.
5. BASIS: This special permit is based on the application of Tire Seal, Inc. dba TSI Supercool dated December 19, 2024, submitted in accordance with § 107.105 and the public proceeding thereon.

Tracking Number: 2024125144

6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous Material Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Aerosols, non-flammable, (<i>each not exceeding 1 L capacity</i>)	2.2	UN1950	N/A
Compressed gas, flammable, n.o.s. (2,3,3,3 Tetrafluoropropene <i>or</i> Refrigerant Gas HFO-1234yf)	2.1	UN1954	N/A
Consumer commodity*	9	ID8000	N/A
1,1,1,2-Tetrafluoroethane <i>or</i> Refrigerant gas R 134a	2.2	UN3159	N/A
Liquefied gas, n.o.s. (1,3,3,3-Tetrafluoroprop-1-ene <i>or</i> Refrigerant Gas R-450a <i>or</i> Refrigerant Gas HFO-1234ze <i>or</i> Refrigerant Gas R-456a)	2.2	UN3163	N/A

*This reclassification to this proper shipping name is only authorized for Division 2.2 gases.

7. SAFETY CONTROL MEASURES:

a. PACKAGING: Prescribed packagings are non-refillable non-DOT specification inside metal containers conforming with Alucan Entec drawings A74250COJ1D/0, dated June 4, 2020, and A74120COJFP/0, dated June 4, 2020, on file with the Office of Hazardous Materials Safety. The containers must be in conformance with DOT Specification 2Q (§ 178.33a), except as follows:

§ 178.33a-6 Manufacture.

(a) * * *

(b) * * *

(1) * * *

(2) Side seams. Not permitted.

§ 178.33a-7 Wall thickness.

- (a) The minimum wall thickness for any container shall be 0.48 mm (0.019 inch).

§ 178.33a-8 Tests. Burst Test: For qualification burst tests, each 5,000 containers or fewer, successively produced as a batch or part thereof shall constitute a lot. Two containers, taken randomly from each lot and complete with the ends assembled must be pressure tested to destruction. The burst test of containers may not be less than 27.6 bar (400 psig). If either container fails to meet the above requirements, the lot shall be rejected. However, an additional 10 randomly selected containers from that lot may be burst tested to qualify that lot. If any of the additional test containers fail the burst test, the lot must be rejected.

§ 178.33a-9 Marking. Applies except that the container must be marked with “DOT-SP 21023” in lieu of “DOT 2Q”.

b. OPERATIONAL CONTROLS: Each packaging must be prepared and shipped in accordance with the following:

- (1) The filling density may not exceed 87 percent.
- (2) Prior to initial shipment of the filled containers, each completed container must be tested in accordance with § 173.306(a)(3)(v). Lading equilibrium pressure may not exceed 200 psig at 130 °F. Liquid content of lading may not completely fill the container at 130 °F. Acceptable containers must show no evidence of leakage, distortion, or other defect.
- (3) The container must be packaged in a strong outside packaging as prescribed in § 173.301(a)(9).
- (4) Each outside packaging must be marked “INSIDE CONTAINERS COMPLY WITH DOT-SP 21023”.
- (5) Containers filled with a material meeting the definition of a “consumer commodity” in § 171.8 may be reclassified and shipped as “Consumer commodity, 9, ID8000” in accordance with § 173.167. These outside packagings are not required to be marked “INSIDE CONTAINERS COMPLY WITH DOT-SP 21023” as specified above in paragraph 7.b.(4).

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 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.

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