



U.S. Department  
of Transportation

**Pipeline and Hazardous  
Materials Safety  
Administration**

**August 18, 2023**

1200 New Jersey Avenue, SE  
Washington, DC 20590

DOT-SP 14601  
(FIFTH REVISION)

**EXPIRATION DATE: 2027-07-31**

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: Gulbrandsen Chemicals, Inc  
Orangeburg, SC
  
2. PURPOSE AND LIMITATIONS:
  - a. This special permit authorizes the transportation in commerce of certain non-DOT specification spherical pressure vessels for the transportation in commerce of boron trifluoride. 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. Party status to this special permit is limited to companies that purchased the described pressure vessels from the former grantee (Precision Combustion Technology, LLC).
  
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
  
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.302a(a)(1) in that non-DOT specification spherical pressure vessels are not authorized, except as specified herein.

Tracking Number: 2023075093

5. **BASIS:** This special permit is based on the application of Gulbrandsen Chemicals, Inc. dated July 20, 2023, submitted in accordance with § 107.105 and the public proceeding thereon.
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>
Boron trifluoride, compressed	2.3	UN1008	N/A, Hazard Zone B

7. **SAFETY CONTROL MEASURES:**

a. **PACKAGING:** Packaging prescribed is a non-DOT specification spherical pressure vessel constructed in accordance with Precision Combustion Technology (PCT), LLC's drawings, technical specifications, and calculations on file with the Office of Hazardous Materials Safety and in conformance with the following provisions:

(1) **Code:** Each spherical pressure vessel must be designed, constructed, and certified in accordance with Section VIII, Division 1 of the ASME Code including the ASME "U" stamp, and qualified to contain "lethal substances" as specified in Part UW-2 of the ASME Code. The pressure vessel is made from two hemispherical dished heads, joined by a single butt weld circumferential seam, fully radiographed per ASME Code Part UW-51.

(2) **Material:** ASME SA-516-70.

(3) **Vessel Size:**

Water capacity: 635 L (168 U.S. Gallons)

Outside Diameter: 107 cm (42 inches)

Wall Thickness: 4.45 cm (1.750 inches)

Weld Joint Efficiency: 1.0

Corrosion Allowance: 0.0

(4) Design pressure: 200 bar (2900 psig)

Note: Design pressure means “maximum allowable working pressure (MAWP)” as used in the ASME Code.

(5) Pressure relief system: No pressure relief device is required. However, if it is used, then one (1) CG-5 combination rupture disc and fuse plug device with a minimum net flow area of 0.17 square inches and the rupture disc burst pressure of 190 bar shall be selected.

b. TESTING:

(1) Manufacture: A signed and dated ASME Data Report Form must be maintained by the owner of each spherical pressure vessel authorized by this special permit.

(2) Qualification, Maintenance and Repair: Each pressure vessel must be retested, inspected, and repaired in accordance with § 180.605 as specified for UN portable tanks.

c. OPERATIONAL CONTROLS: Transportation is authorized with the mounting of the pressure vessels on an ISO platform container.

d. MARKING: Each non-DOT specification pressure vessel must be plainly and durably marked on opposing sides near the middle, in letters and numerals at least 5 cm (2 inches) high on a contrasting background, “DOT-SP 14601”. Additionally, each pressure relief device must be marked with a start-to-discharge pressure in psig and a rated relief device capacity in SCFH.

8. 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 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.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, cargo vessel, and rail freight.
10. MODAL REQUIREMENTS: 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.
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 Material 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: Rene Brown