

June 04, 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 12549  
(SIXTH REVISION)

**EXPIRATION DATE: 2025-04-30**

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: TRISTAR Engineering Consulting Logistic SA  
Bucharest, Romania  
  
US AGENT: Chlorine Service Co.  
Kingwood, TX
2. PURPOSE AND LIMITATIONS:
  - a. This special permit authorizes the transportation in commerce of certain DOT Specification 51 steel portable tanks designed and constructed in accordance with Section VIII, Division 2 of the ASME Code instead of Section VIII, Division 1. The portable tanks, mounted in ISO frames, are authorized for transportation in commerce of Division 2.1 and 2.2 materials. 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.
  - c. Party status will not be granted to this special permit.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.

Tracking Number: 2021054687

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4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.32(c)(2) in that the DOT 51 tanks are designed, constructed, certified and stamped in accordance with Section VIII, Division 2 of the ASME Code.
5. BASIS: This special permit is based on the application of TRISTAR Engineering Consulting Logistic SA dated April 28, 2021, submitted in accordance with § 107.109.
6. HAZARDOUS MATERIALS (49 CFR § 172.101):

<b>Hazardous Materials Description</b>			
<b>Proper Shipping Name</b>	<b>Hazard Class/ Division</b>	<b>Identi- fication Number</b>	<b>Packing Group</b>
Division 2.1 and 2.2 materials authorized for DOT Specification 51 portable tanks	2.1 2.2	Various	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packagings prescribed are DOT Specification 51 steel portable tanks that are designed, constructed, certified and stamped in accordance with Section VIII, Division 2 of the ASME Code, including the ASME U2 stamp. Each portable tank must be constructed in accordance with Griro S.A. drawings numbered GR 4810-0 Rev. 2 for Model GR 4810 and GR 4834-0 Rev. 0 for Model GR 4834 and with other drawings, specifications and calculations on file with the Office of Hazardous Materials Safety Approvals and Permits Division (OHMSAPD) and in compliance with the following provisions:

(1) **Code:** Tanks must comply with DOT Specification 51 in all respects except for the design code. This special permit authorizes the use of Section VIII, Division 2 of the ASME Code along with ASME Code Case 2279, 2261 and 2265 as the design code.

(2) **Shell and Head Material:** SA612-N carbon steel

## (3) Tank Design Criteria:

MODEL	GR 4810	GR 4834
Water Capacity	22,000 Liters (5,812 Gallons)	21,720 Liters (5,738 Gallons)
Inside Diameter	2,280 mm (89.76 inches)	2,274 mm (89.53 inches)

MODEL	GR 4810	GR 4834
Length	5,854 mm (230.47 inches)	5,854 mm (230.47 inches)
Min. Shell Thickness	12.3 mm (0.483 inch)	15.75 mm (0.62 inch)
Min. Head Thickness	12.1 mm (0.476 inch)	15.75 mm (0.62 inch)
Design Pressure <sup>1</sup>	19.1 bar (277 psig)	25.0 bar (362.6 psig)
Test Pressure	27.3 bar (396 psig)	35.75 bar (518.5 psig)
Exposed Surface Area	44.80 m <sup>2</sup> (483 ft <sup>2</sup> )	44.8 m <sup>2</sup> (483 ft <sup>2</sup> )
Pressure Relief Device Setting	21.0 bar (305 psig)	27.5 bar (398.9 psig)
Relief Device Capacity <sup>2</sup>	43,024 m <sup>3</sup> /H (25,320 SCFM)	55,728 m <sup>3</sup> /H (32,796 SCFM)

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MODEL	GR 4810	GR 4834
Tare Weight	6,500 kgs +/- 2% (14,330 lbs)	7,650 kgs (16,865 lbs)
Maximum Net Weight	24,500 kgs (55,036 lbs)	28,350 kgs (62,501 lbs)

**NOTES:** <sup>1</sup> Design pressure means "Maximum Allowable Working Pressure" as used in the ASME Code.

<sup>2</sup> The venting capacity requirement for each material must be determined by the flow formulas contained in the Compressed Gas Association (CGA) Pamphlet S-1.2.

(4) **Openings:** One (1) - 420 mm (16.5 inch) diameter manway; one (1) - 65 mm (2.5 inch) diameter liquid phase opening; one (1) - 65 mm (2.5 inch) diameter gas phase opening; one (1) - 13 mm (0.5 inch) thermometer; and one - 13 mm (0.5 inch) manometer opening on the end; one (1) - 142 mm (5.5 inch) diameter pressure relief device opening on the top.

**NOTE:** Each bottom outlet valve must be provided with a shear section that meets the requirements of § 178.337-12.

(5) **Pressure Relief Devices:** For each tank design, a spring-loaded pressure relief valve (minimum of 3-inch diameter) set at 110% of the design pressure must be provided. A rupture disc in series with the relief valve is optional. The venting capacity requirement for each material must be determined by the flow formulas contained in the Compressed Gas Association (CGA) Pamphlet S-1.2.

(6) **G-Loadings:** Vertical down - 2; Vertical up - 2; Longitudinal - 2; Transverse - 2

(7) **Maximum Gross Weight:** 36,000 kg (79,366 lb)

(8) **Design Temperature Range:** -40 °C to 55 °C (-40 °F to 131 °F)

- (9) **Corrosion Allowance:** 0.0
- (10) **Radiography:** 100%
- (11) **Design Specific Gravity:** 1.3
- (12) **Baffles:** 2
- (13) **Insulation:** Sun shield

b. TESTING -

(1) Hydrostatic test certificates for each tank must be maintained by the owner and made available upon request to any representative of the DOT.

(2) Each portable tank must be retested and inspected as specified for DOT Specification 51 portable tanks in § 173.32(e).

c. OPERATIONAL CONTROLS -

(1) The pressure produced by the lading and any gas padding at 50 °C may not exceed the design pressure of the portable tank.

(2) Each tank must be visually inspected prior to shipment. Any unsafe condition must be corrected prior to the tank's use.

(3) The tank must be filled in accordance with the requirements specified in § 173.315.

8. SPECIAL PROVISIONS:

a. 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 and the HMR.

b. No new construction of this packaging is authorized.

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- c. A person who is not a holder of this special permit, but leases a packaging covered by this special permit, may offer it for transportation provided no modification or change is made to the packaging and it is offered for transportation in conformance with this special permit and the HMR.
- d. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation.
- e. 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 was manufactured or (2) marked with a registration symbol designated by the OHMSAPD for a specific manufacturing facility.
- f. A current copy of this special permit must be maintained at each facility where the package is manufactured under this special permit. It must be made available to a DOT representative upon request.
- g. MARKING -
- (1) Each portable tank must be plainly marked on both sides near the middle, in letters and numerals at least two inches high on a contrasting background "DOT-SP 12549." Additionally, each portable tank must be marked "Case 2279/2265/2261" on the ASME name plate and on the Manufacturer's Data Report.
  - (2) Each pressure relief valve must be marked with its set pressure and flow rate in SCFH.
- h. A test report documenting a satisfactory ISO prototype test for each tank design must be on file with OHMSAPD prior to the first shipment.
- i. Transportation of Division 2.1 materials (flammable gases) are not authorized aboard cargo vessel unless specifically authorized in the Hazardous Materials Table (§ 172.101).
9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight and cargo vessel (see restriction in paragraph 8.h).
10. MODAL REQUIREMENTS: A current copy of this special permit

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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, 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

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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-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 [http://hazmat.dot.gov/sp\\_app/special\\_permits/spec\\_perm\\_index.htm](http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm). Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: Andrew Eckenrode/kah