

AUG 17 2004



U.S. Department
of Transportation

400 Seventh Street, S.W.
Washington, D.C. 20590

**Research and
Special Programs
Administration**

DOT-E 9548
(SIXTH REVISION)

EXPIRATION DATE: May 31, 2006

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Ethyl Corporation
Richmond, VA

(See Appendix A for a list of additional grantees)

2. PURPOSE AND LIMITATION:

- a. This exemption authorizes the transportation in commerce of a non-DOT specification IMO Type I portable tank. This exemption provides no relief from any Hazardous Materials Regulations (HMR) other than as specifically stated herein.
- b. The safety analyses performed in development of this exemption only considered the hazards and risks associated with transportation in commerce.

3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.

4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.244, in that a non-DOT specification IMO Type I portable tank is authorized.

5. BASIS: This exemption is based on the application of Ethyl Corporation dated October 24, 2003, submitted in accordance with § 107.105 and the public proceeding thereon. An additional application dated January 15, 2004 was submitted in accordance with § 107.109, and a subsequent letter dated August 17, 2004 was also submitted.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Proper Shipping Name/ Hazardous Materials Description	Hazard Class/ Division	Identi- fication Number	Packing Group
Motor fuel anti-knock mixtures	6.1	UN1649	I

7. SAFETY CONTROL MEASURES:

PACKAGING - Prescribed packaging is a non-DOT specification portable tank, mounted in an ISO frame, designed and constructed in accordance with Fruehauf S.A. drawing number 840236, other drawings, technical specifications and calculations on file with the Office of Hazardous Materials Exemptions and Approvals (OHMEA) and in compliance with the following:

(a) Code -- Compliance with DOT Specification 51 except that the tanks are not ASME Code "U" stamped; IMO Type 1.

(b) Insulation -- None.

(c) Water Capacity (U.S. Gallons) -- 3,038.

(d) Material -- Spanish fine grain carbon steel A52D, Yield strength - 51,090 psi; Tensile strength - 73,800 psi; Equivalent to ASTM A516 grade 70.

(e) Tank Size (inches) (outside dia.) X (length) X (thickness)
65.75 224.5 0.3504 (min)

Head Thickness -- 0.3740 (min)

Weld Joint Efficiency -- 1.0

Corrosion Allowance -- 0.0

(f) Design Pressure (PSIG) -- 200

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

(g) Test Pressure, Minimum (PSIG) -- 300

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(h) Openings -- One (1) - 20 inch diameter manhole containing filling and discharge connections, vent connection, pressure relief device connection a blank flange on top; no bottom outlets.

(i) Tank surface area (square feet) -- 342

(j) Pressure Relief Devices -- One (1) - 1.5 inch diameter spring loaded safety relief valve in series with and outboard of a rupture disc both set at 200 psig. Total relief device capacity is 256,800 SCFH.

(k) G-Loadings: Vertical down 2; Vertical up 2;
Longitudinal 2; and Transverse 2.

(l) Maximum Gross Weight (pounds) -- 51,000

(m) Maximum Commodity Weight (pounds) -- 38,610

(n) Tare Weight (pounds) -- 12,390

(o) Design Specific Gravity -- 1.52

8. SPECIAL PROVISIONS:

a. A person who is not a holder of this exemption who receives a package covered by this exemption may reoffer it for transportation provided no modifications or changes are made to the package and it is reoffered for transportation in conformance with this exemption and the HMR.

b. A current copy of this exemption must be maintained at each facility where the package is offered or reoffered for transportation.

c. Each portable tank must be plainly marked on both sides near the middle, in letters at least two inches high on a contrasting background, "DOT-E 9548".

d. Hydrostatic test certificates for each tank must be maintained by the owner or manufacturer at its principal business office and be made available to any representative of the DOT upon request.

- e. Each portable tank must be marked "MOTOR FUEL ANTIKNOCK COMPOUND" or "ANTIKNOCK COMPOUND".
- f. The tank must be filled so as not to be liquid full at less than or equal to 130°F.
- g. Each tank must be (i) visually inspected prior to each trip to ensure that it has not been damaged on the previous trip; (ii) visually inspected at least once every 2-1/2 years as prescribed for IM 101 portable tanks in § 180.605(d), except that an internal inspection is not required; (iii) reinspected once every five years in accordance with § 180.605(e), as prescribed for a DOT Specification 51 portable tank, except that an internal inspection is not required provided that an ultrasonic thickness test is performed; and (iv) retested once every five years in accordance with § 180.605(e) as prescribed for a DOT Specification 51 portable tank. If an ultrasonic thickness is used as an alternative to an internal inspection, it must be performed in conformance with applicable procedures specified for thickness testing of cargo tanks as set forth in § 180.407(i).
- h. Portable tanks may not be transported in container-on-flat car (COFC) or trailer-on-flat car (TOFC) service except under conditions approved by the Associate Administrator for Safety, Federal Railroad Administration.
- i. "DOT-E 9548" must be stamped on the metal manufacturer's data plate on the line which reads "U.S. DOT Specification No.".
- j. For each portable tank, the manufacturer must prepare a certificate which must be signed by a responsible official of the manufacturer and an independent inspection agency certifying that the portable tank is designed and constructed in accordance with the ASME Code and this exemption. The certificate for the first portable tank fabricated must be submitted to the OHMEA prior to the initial shipment.
- k. The construction of all portable tanks authorized by this exemption started after November 1, 1986, must be in full conformance with ASME Code including the "U" stamp.

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9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo vessel.
10. MODAL REQUIREMENTS: A current copy of this exemption must be carried aboard each motor vehicle and cargo vessel used to transport packages covered by this exemption.
11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption 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 exemption and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
 - o Persons operating under the terms of this exemption 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 exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this exemption, including display of its number, when the exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS: The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (Sections 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the holder(s) of this exemption must inform the AAHMS, in writing, of any incident involving the package and shipments made under the terms of this exemption.
- a. The owner of the tanks covered by this exemption must provide to the OHMEA a list of all shippers who have shipped under this exemption and a shipping experience report every six months from the effective date of this exemption. The shipping experience report must contain

approximate number of shipments made during the previous six months and any difficulties encountered.

- b. The holders or parties to this exemption, as identified in paragraph 1 above, must contact the OHMEA immediately after any of the tanks covered by this exemption are sold to another party.

Issued in Washington, D.C.:



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Robert A. McGuire
Associate Administrator for
Hazardous Materials Safety

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(DATE)

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590.
Attention: DHM-31.

Copies of this exemption may be obtained by accessing the Hazardous Materials Safety Homepage at <http://hazmat.dot.gov/exemptions> Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

PO: PTO/AM

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The following are hereby granted party status to this exemption based on their application(s) submitted in accordance with § 107.107 or § 107.109, as appropriate:

Company Name City/State	Application Date	Issue Date	Expiration Date
Afton Chemical Corporation, Richmond, VA	Jun 7, 2004	Aug 10, 2004	May 31, 2006



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Robert A. McGuire
Associate Administrator for
Hazardous Materials Safety