



U.S. Department  
of Transportation

**Research and  
Special Programs  
Administration**

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

**SEP 21 2004**

DOT-E 9149  
(SIXTH REVISION)

EXPIRATION DATE: August 31, 2006

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Ethyl Corporation  
Richmond, VA
2. PURPOSE AND LIMITATION:
  - a. This exemption authorizes the transportation in commerce of the hazardous materials listed in paragraph 6 below in non-DOT specification IMO type portable tanks. This exemption provides no relief from the 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 §§ 173.242(c), 173.243(c), 173.244(c) and 174.63(c)(1) in that non-DOT specification portable tanks specified in this exemption are authorized.
5. BASIS: This exemption is based on the application of Ethyl Corporation dated July 26, 2004, submitted in accordance with § 107.109.

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6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Proper Shipping Name/ Hazardous Materials Description	Hazard Class/ Division	Identi- fication Number	Packing Group
Flammable liquid, toxic, n.o.s. (xylene, methylcyclopentadienyl manganese tricarbonyl)	3	UN1992	III
Flammable liquid, n.o.s. (contains petroleum distillates)	3	UN1993	III
Metal carbonyls, n.o.s. (methylcyclopentadienyl manganese tricarbonyl)	6.1	UN3281	II
Motor fuel anti-knock mixtures	6.1	UN1649	I

7. SAFETY CONTROL MEASURES: Prescribed packaging is a non-DOT specification portable tank, mounted in an ISO frame, designed and constructed in accordance with Bleiwerk Goslar KG drawings 82-2-6684.00 and 82-1-6684.01 dated June 14, 1983, 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 - Conforms with DOT Specification 51 except that the tanks are not ASME Code stamped; IMO Type 1.
- b. Insulation - None
- c. Water Capacity (U.S. Gallons) - 3,065
- d. Material - German fine grain carbon steel St E 36; Yield strength - 51,475 psi; Tensile strength - 71,050 psi; Equivalent to ASTM A516 grade 70.

(outside dia)x(length)x(thickness)

- e. Tank Size (inches) - 64.96                      231.5                      0.3937

Head Thickness - 0.3937  
Weld Joint Efficiency - 1.0

f. Design Pressure (PSIG) - 100

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

g. Test Pressure, Minimum (PSIG) - 150

h. Openings - One (1) 20-inch diameter manhole containing filling and discharge connections, vent connection, pressure relief device connection, and 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 100 psi. Total relief device capacity is 144,240 SCFH.

k. G-Loadings - Vertical down 2; Vertical up 2;  
Longitudinal 3.5; and Transverse 1.5.

l. Maximum Gross Weight (pounds) - 57,320

m. Maximum Commodity Weight (pounds) - 45,415

n. Tare Weight (pounds) - 11,905

o. Design Specific Gravity - 1.78

p. Design Temperature (°F) - 140

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 9149".
- d. Hydrostatic test certificates for each tank must be maintained by the manufacturer or owner at its principal business office and be made available to any representative of the DOT upon request.
- e. Each portable tank must be marked with the appropriate proper shipping name listed in paragraph 6 of this exemption.
- f. The tank must be filled 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 insure that it has not been damaged on the previous trip; and (ii) retested and reinspected once every five years in accordance with § 173.32b as prescribed for DOT Specification 51 portable tanks.
- h. Portable tanks may not be transported in container-on-flat car (COFC) or trailer-on-flat (TOFC) service except under conditions approved by the Associate Administrator, Federal Railroad Administration.
- i. The exemption does not apply to operations beyond the jurisdiction of the United States of America.
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 cargo vessel and motor vehicle 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.

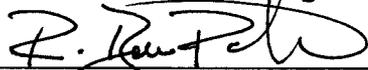
- o Persons operating under the terms of this exemption must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
- o Registration required by § 107.601 et seq., when applicable.

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.

Issued in Washington, D.C.:



*fr* 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: sdc

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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	<b>SEP 21 2004</b>	Aug 31, 2006



*for* Robert A. McGuire  
Associate Administrator for  
Hazardous Materials Safety

**SEP 21 2004**

Date