



U.S. Department
of Transportation

**Research and
Special Programs
Administration**

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

OCT 19 2004

DOT-E 5749
(TENTH REVISION)

EXPIRATION DATE: September 30, 2006

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: E. I. du Pont de Nemours and Company
Wilmington, Delaware

2. PURPOSE AND LIMITATION:
 - a. This exemption authorizes the transportation in commerce of a 60-percent tetrafluoroethylene - 40-percent hydrogen chloride gas mixture classed as a Division 2.3 material in an insulated nickel-steel DOT Specification MC-331 cargo tank. This exemption provides no relief from any Hazardous Materials Regulation (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 § 173.315(a), Notes 22 and 25, except as prescribed herein.

5. BASIS: This exemption is based on the application of E. I. du Pont de Nemours and Company dated September 24, 2004, submitted in accordance with § 107.109.

6. HAZARDOUS MATERIALS (49 § 172.101):

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Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Compressed gas, toxic, flammable, n.o.s. -- 60-percent tetrafluoroethylene - 40-percent hydrogen chloride gas mixture	2.3	UN1953	Hazard Zone D

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Two packages are authorized as prescribed in paragraphs (1) and (2) below:

(1) Packaging prescribed is an insulated nickel-steel DOT Specification MC 331 cargo tank as described on Lubbock Manufacturing Company's Drawing STR-716-A, TR-1609 (both with design pressure of 250 psig) except that liquid discharge openings are fitted with valves manufactured by ORBIT Valve Company or ITT instead of Hill-McCann Division as shown on above drawing. Liquid discharge opening must be less than 1-1/4 inches diameter as specified in § 178.337-11(c). ORBIT Manufacturing Company valves or ITT valves may also be applied to other discharge openings on the trailers instead of Hill-McCanna Division valves shown on above drawings. Also, there must be means to determine that the ORBIT valve is closed. Instructions must be permanently marked on the vehicle in the valve cabinet area to instruct the driver and other interested persons how to check on the valve closure. The reverse buckling rupture disc safety valve assembly must contain a screen designed and located to prevent fragments of the disc clogging the valve; and the space between the disc and the valve must be checked for pressure build-up each time the tank is loaded.

Permissible modifications to drawings include:

- (i) installation of a catwalk around outside of man way protective housing with access ladder to catwalk;
- (ii) installation of a lightweight man way protective housing cover which retains original provision for safety valve discharge venting;
- (iii) telltale device to verify integrity of rupture disc below safety valve;
- (iv) replacement of original bolts and studs that may be susceptible to stress corrosion with alloy steel (ASTM 193 B7 OR B7M and ASTM A320 Grade 17M), Monel (ASTM F-468) or Inconel (AMS-5664A) bolts and studs;
- (v) replacement of carbon steel emergency cover rings at tank bottom outlet flanged fittings with Inconel emergency cover rings to eliminate corrosion of these rings;
- (vi) replacement of welded steel sheet metal bottom of the piping guard cabinet with Inconel edged fiberglass panels which are removable to provide open access to the trailer's operating valves under emergency conditions. The piping guard cabinet must meet the requirements of § 178.337-10;
- (vii) installation of storage cabinet on trailer to store emergency capping kit equipment; and
- (viii) modification of manhole dome protective housing to accommodate an emergency capping equipment yoke. The manhole dome protective housing must meet the requirements of §§ 178.337-10(a) and (b).

(2) Packaging prescribed is an insulated nickel-steel DOT Specification MC 331 cargo tank as described on Keen Service Corporation's drawings D-230, D-231 and D-234 (design pressure of 450 pig).

Permissible modifications to the drawings include those for package (1) as long as all changes comply with DOT Specification MC 331 cargo tanks and any requirements specific to the 60-percent tetrafluoroethylene - 40-percent hydrogen chloride gas mixture.

b. TESTING - Tanks must be tested to 1-1/2 times the service (design) pressure before being placed in service. Each cargo tank must be reinspected and retested once every 2 years in accordance with § 180.407(c) as prescribed for DOT Specification MC-331 cargo tanks.

c. OPERATIONAL CONTROLS -

(1) Material is loaded at -40°F. Tanks must be filled by weight. Maximum filling density is 105%.

(2) The maximum hauling time is calculated as follows:
Max. Hauling Time = [Holding Time - 24 hours] ÷ 2.
Holding times and hauling times for tanks are as follows:

Tank Design Pressure	Holding Time	Hauling Time
250 psig	105 hours	40.5 hours
450 psig	207 hours	91.5 hours

(3) Before transportation in an empty condition, each tank must be free of liquid content. In addition, the vapor pressure must be so reduced as to avoid the possibility of venting en route.

(4) Drivers must have been instructed as to necessary safeguards and proper procedure in the event of unusual delay, fire, or accident.

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. MARKING - Each cargo tank must be plainly marked on the right side near the front, in letters at least 2-inches high on a contrasting background, "DOT-E 5749."

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle.

10. MODAL REQUIREMENTS: A current copy of this exemption must be carried aboard each 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:

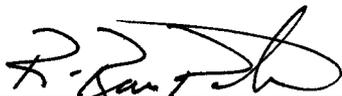
- o All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
- o Persons operating under the terms of this exemption must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
- o Registration required 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.:



Robert A. McGuire
Associate Administrator for
Hazardous Materials Safety

OCT 19 2004

(Date)

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: PTolson/sln