

March 28, 2006



U.S. Department  
of Transportation

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

**Pipeline and  
Hazardous Materials  
Safety Administration**

DOT-SP 13229  
(FOURTH REVISION)

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: See Individual Authorization Letter
2. PURPOSE AND LIMITATION:
  - a. This special permit authorizes the transportation in commerce of phosphine in certain DOT specification and non-DOT specification cylinders. This special permit provides no relief from any Hazardous Materials Regulation (HMR) other than as specifically stated herein.
  - 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 or other uses not associated with transportation in commerce.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 173.192(a) and 173.304a(b) in that non-DOT specification cylinders are not authorized except as specified herein; and §§ 173.301(1) and 173.304(b) in that cylinders may be liquid full at temperatures below 130°F.
5. BASIS: This special permit is based on the application of Matheson Tri-Gas Incorporated dated February 25, 2005, submitted in accordance with § 107.105 and the public proceeding thereon.

**March 28, 2006**6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Proper Shipping Name/ Hazardous Materials Description	Hazard Class/ Division	Identi- fication Number	Packing Group
Phosphine	2.3	UN2199	N/A Zone A

7. SAFETY CONTROL MEASURES:a. PACKAGING - Packagings prescribed are:

(1) DOT specification 3A, 3AA and 3AL cylinders with a minimum marked service pressure of 2180 psig (150 bar).

(2) Non-DOT specification seamless aluminum cylinders with a marked test pressure of 300 bar (4,500 psig) manufactured by Luxfer Gas Cylinders (Nottingham, England). Cylinders must be in conformance with Luxfer Gas Cylinders drawing numbers NM20EEC, NM40EEC, NM50EEC and P2802Z on file with the Office of Hazardous Materials Exemptions and Approvals. The cylinders must be tested and re-qualified by an ultrasonic examination (UE) method described in latest revision of ISO 6406:2005.

b. OPERATIONAL CONTROLS -

(1) The maximum permitted fill density is 45 percent. Fill density is defined as the percent ratio of the weight of the gas in a cylinder to the weight of the water that the cylinder will hold at 60°F.

(2) The pressure in the cylinder may not exceed 95 percent of the cylinders test pressure at 65°C (149°F).

(3) The critical temperature ( $T_c$ ) of phosphine must be above 15°C (59°F) and below 65°C (149°F).

(4) Pressure relief devices are prohibited.

(5) Transportation by motor vehicle is limited to private carriage or contract carriage under the exclusive use of the shipper.

(6) Emergency response information provided with the shipment and available via an emergency response telephone number must indicate that the cylinders are not fitted with pressure relief devices and provide appropriate guidance for exposure to fire.

8. SPECIAL PROVISIONS:

a. A current copy of this special permit must be maintained at each facility where the package is offered for transportation.

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

c. Packagings permanently marked "DOT-E 13229", prior to October 1, 2007 may continue to be used under this special permit for the remaining service life of the packaging or until the special permit is no longer valid. Packagings marked on or after October 1, 2007 must be marked "DOT-SP 13229".

d. Shipping papers displaying "DOT-E 13229" may continue to be used until October 1, 2007 provided the special permit remains valid.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle and cargo vessel.

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 -- OHMSPA, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:



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for Robert A. McGuire  
Associate Administrator  
for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous  
Materials Safety, Pipeline and Hazardous Material Safety  
Administration, Department of Transportation, Washington, D.C.  
20590. Attention: PHH-31.

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).  
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PO: TOUGHIRY