



U.S. Department  
of Transportation  
**Research and  
Special Programs  
Administration**

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

APR 4 2002

DOT-E 10022  
(FOURTH REVISION)

EXPIRATION DATE: February 29, 2004

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Praxair, Inc.  
Danbury, CT

(See Appendix A to this document for a list of additional grantees)

2. PURPOSE AND LIMITATION:

- a. This exemption authorizes the use of a non-DOT specification steel cylinder with full removable head to be used as an overpack for salvaging damaged or leaking packages containing certain hazardous materials other than Classes 1 and 7. 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. The safety analyses did not consider the hazards and risks associated with consumer use, use as a component of a transport vehicle or other device, 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 §§ 173.40, 173.181, 173.192, 173.193, 173.195, 173.198, 173.201, 173.202, 173.203, 173.226, 173.227, 173.228, 173.301, 173.302, and 173.304 in that the use of non-DOT specification packages are not authorized, except as specified herein.

5. BASIS: This exemption is based on the application of Praxair, Inc. dated February 26, 2002 submitted in accordance with § 107.109.
6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Proper Shipping Name/ Hazardous Materials Description	Hazard Class/ Division	Identi- fication Number	Packing Group
Materials (Classes 2, 3, 4, 5, 6, 8 and 9 except acetylene) authorized for transport in DOT specification cylinders in the Hazardous Materials Regulation.	As appropriate	As appropriate	As appropriate

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Prescribed packaging is a non-DOT specification full-removable head, steel salvage cylinder of welded construction, with provisions for perforating damaged cylinders and safely draining contents of the cylinder placed therein. The salvage cylinder must conform with Ewal Manufacturing Company, Inc.'s drawing SK-148-DES 2 dated February 5, 1987 on file with the Office of Hazardous Materials Exemptions and Approvals (OHMEA). The salvage cylinder must be designed, constructed and stamped in accordance with Section VIII of the ASME Code for a working pressure of 300 psig and the following:

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Volume	55 gallons water capacity (nominal)
Material	ASTM A-53 Gr. B, A-516 Gr. 70, SA-285 or equivalent carbon steel
Design stress	Per ASME Code, minimum factor of safety of 4:1
Outside diameter	16 inches (nominal)
Length	64 inches (nominal)
Sidewall thickness	0.250 inch nominal, (0.240 inch, min.)
Design service pressure (MAWP)	300 psig
Test pressure	450 psig
Openings: On sidewall On removable top head	two - 1 inch diameter welded fittings two - 1/4 inch NPT for valve and PRD
Pressure relief device(s)	one pressure relief valve set at 450 psig
Welded attachments	two lifting brackets and two forklift (lifting) brackets

b. TESTING - At least once every 2 years, each cylinder must be visually reinspected (internally and externally) and hydrostatically retested to 450 psig. The visual inspections must be performed in accordance with the Compressed Gas Association's Pamphlet C-6. The retest and inspection must be made by an employee that is familiar with the salvage cylinder and is trained and experienced in the use of the inspection and testing equipment. Records of retest must be made available to a DOT representative upon request.

c. OPERATIONAL CONTROLS -

(1) Drivers and persons who load/unload or transport the salvage cylinders must have been trained in handling and loading/unloading the salvage cylinder.

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(2) Damaged cylinders containing liquefied gases with a vapor pressure exceeding 300 psig at 70° F are not authorized.

(3) The non-liquefied gases in damaged cylinders to be transported must be limited in pressure and volume so that if totally discharged into the salvage cylinder the pressure at 70° F will not exceed 300 psig.

(4) Each salvage cylinder must be labeled as prescribed for the material in the damaged cylinder.

(5) Each salvage cylinder must be secured to the motor vehicle by a securement system that conforms with the requirements contained in §§ 393.100 to 393.106.

(6) Transportation is limited to motor vehicles owned or leased by Praxair, Inc. or its contract carriers.

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 modification or change is made to the package or its contents 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. MARKINGS - Each cylinder must be plainly marked on both sides near the middle, in letters at least 2 inches high on a contrasting background "DOT-E 10022" and "SALVAGE CYLINDER".

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:

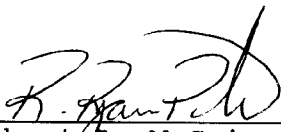
- o All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
- o Registration required by § 107.601 et seq., when applicable.

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 this 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.:

  
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Robert A. McGuire  
for 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: KFW

**January 16, 2004**

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:

<b>Company Name City/State</b>	<b>Application Date</b>	<b>Issue Date</b>	<b>Expiration Date</b>
Aeriform Corporation Houston, TX	Dec 10, 2003	Jan 16, 2004	Dec 31, 2005



for Robert A. McGuire  
Associate Administrator for  
Hazardous Materials Safety