



U.S. Department  
of Transportation

**Research and  
Special Programs  
Administration**

MAY 18 1998

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

DOT-E 12021

EXPIRATION DATE: April 30, 2000

(FOR RENEWAL, SEE 49 CFR SECTION 107.109)

1. GRANTEE: Praxair, Inc.  
Danbury, CT
2. PURPOSE AND LIMITATION:
  - a. This exemption authorizes the transportation in commerce of dry metal catalyst in a non-DOT specification bulk packaging. This exemption provides no relief from any Hazardous Materials Regulation 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 173.242 in that a non-DOT specification bulk packaging is authorized.
5. BASIS: This exemption is based on the application of Praxair, Inc. dated December 12, 1997 and additional information dated April 7, 1998, submitted in accordance with 49 CFR 107.105 and the public proceeding thereon.
6. HAZARDOUS MATERIALS (49 CFR 172.101):

Proper Shipping Name/ Hazardous materials description	Hazard Class/ Division	Identi- fication Number	Packing Group
Metal catalyst, dry	4.2	UN2881	II

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packaging prescribed is a non-DOT specification bulk packaging. A representative layout is provided in Praxair drawing BAG-A-97-1647 dated December 12, 1997 on file with the Office of Hazardous Materials Exemptions and Approvals. The packaging must conform to the following:

- (1) Dimensions (Maximum):  
Diameter: 96 inches  
Length: 114 inches  
Capacity: 1000 gallons  
Weight: 7500 lbs (net)
- (2) Material: TP 304 Stainless Steel
- (3) Maximum Allowable Working Pressure: 250 psig
- (4) Pressure relief: maximum start-to-discharge pressure of 25.3 psig.
- (5) Designed, constructed, inspected and "U" stamped in accordance with ASME Code, Section VIII, Division 1.
- (6) Insulated with fiberglass or perlite and jacketed with aluminum or carbon steel.
- (7) Design loadings: The packaging, and its supports and securing devices must be designed for the following loads with the packaging filled to its maximum gross weight: Vertical - 2g; Horizontal - 2g concurrent with 1g down; and Lateral - 2g concurrent with 1g down.

b. OPERATIONAL CONTROLS - The metal catalyst must be shipped under a gas blanket of nitrogen or argon at a pressure of not less than 7 psig. Additionally, the maximum gas blanket pressure must not exceed 2 psig less than the start-to-discharge pressure of the pressure relief device.

8. SPECIAL PROVISIONS:

a. Persons who receive the packages covered by this exemption may reoffer them for transportation provided no modifications or changes are made to the packages, all terms of this exemption are complied with and a current copy of this exemption is maintained at each facility from which such reoffering occurs.

b. Shippers using the packaging covered by this exemption must comply with all provisions of this exemption, and all other applicable requirements contained in 49 CFR Parts 171-180.

c. Each packaging must be plainly and durably marked "DOT-E 12021" as specified in 49 CFR 172.302(b) and (c).

d. This exemption serves as a Competent Authority Approval (CA-9805007) by the Associate Administrator for Hazardous Materials Safety, Research and Special Program Administration (RSPA), of the United States Department of Transportation, issued in accordance with Section 22 of the General Introduction to the International Maritime Dangerous Goods (IMDG) Code.

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

10. MODAL REQUIREMENTS:

(1) A copy of this exemption must be carried aboard each cargo vessel or motor vehicle used to transport packages covered by this exemption.

(2) For transport by cargo vessel, the packaging must be secured within a freight container or to a flat designed for containerized handling.

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. Section 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 49 CFR 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in 49 CFR 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 49 CFR 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. (49 CFR 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 at Washington, D.C.:



Alan I. Roberts  
Associate Administrator  
for Hazardous Materials Safety

MAY 18 1998

(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.

The original of this exemption is on file at the above office. Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

Dist: FHWA, USCG  
PO: DBURGER/CHHOCHMAN