



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

September 01, 2021

1200 New Jersey Avenue, SE
Washington, DC 20590

DOT-SP 16525
(SECOND REVISION)

EXPIRATION DATE: 2025-07-31

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Air Products and Chemicals, Inc.
Allentown, PA
2. PURPOSE AND LIMITATION:
 - a. This special permit authorizes the transportation in commerce of a gas purification apparatus containing certain Division 4.1 and 4.2 hazardous materials in non-DOT specification cylinders (pressure vessels). This special permit provides no relief from the Hazardous Materials Regulations (HMR) or the International Maritime Dangerous Goods (IMDG) Code other than as specifically stated herein. The most recent revision supersedes all previous revisions.
 - b. The safety analyses performed in the development of this special permit only considered the hazards and risks associated with the transportation in commerce.
 - c. No party status will be granted to this special permit.
 - d. This special permit serves as an “Approval” under 6.2.1.1.2 of the IMDG Code and as a “Competent Authority Approval” as defined under 49 CFR § 107.1.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180 and the IMDG Code.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 173.187, 173.212, 173.240, and 173.242 in that non-DOT specification cylinders (pressure vessels) are not authorized, except as specified herein.
5. BASIS: This special permit is based on the application of Air Products and Chemicals, Inc. dated August 25, 2021 submitted in accordance with § 107.109.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Metal catalyst, dry	4.2	UN2881	II
Metal powders, flammable, n.o.s. (zirconium alloy)	4.1	UN3089	II

7. SAFETY CONTROL MEASURES:a. PACKAGING:

- (1) Packagings prescribed are pressure vessels designed, constructed and tested in accordance with Section VIII, Division 1 of the ASME Boiler and Pressure Vessel Code.
- (2) The maximum allowable working pressure of each pressure vessel may not be less than 250 psig at 250 °C.
- (3) The pressure vessels and associated components must be arranged and securely affixed within a welded steel frame as shown in the drawings (Attachment A for the Division 4.2 material and Attachment B for the Division 4.1 material) in the application for special permit on file with the Office of Hazardous Materials Safety Approvals and Permits Division.
- (4) The pressure vessels must be transported as follows:
 - (i) The Division 4.2 metal catalyst is contained within one to four non-DOT specification stainless steel pressure vessels and the Division 4.1 metal powder is contained within one to two non-DOT specification stainless steel pressure vessels. The hazardous material must be transported under a nitrogen or argon blanket not exceeding 25 psig.
 - (ii) The total amount of Division 4.2 metal catalyst contained within a single purifier shipment may not exceed 1,000 pounds and the nickel content must not exceed 550 pounds.
 - (iii) The total amount of Division 4.1 metal powder contained within a single purifier shipment may not exceed 400 pounds.
 - (iv) Pressure vessels not for export must be “U” stamped.

(v) Pressure vessels for export only to a country not recognizing the ASME Code “U” symbol stamp may alternatively be stamped as required by the governing design code of the accepting country.

8. SPECIAL PROVISIONS:

- a. Under the terms of this special permit, the grantee may only offer hazardous materials (i.e., the grantee is not authorized as a carrier).
- b. A person who is not a holder of this special permit who receives a package covered by this special permit may reoffer it for transportation provided no modification or change is made to the package and it is reoffered for transportation in conformance with this special permit, the HMR, and the IMDG Code.
- c. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation.
- d. This special permit in no way affects the need to obtain any required authorizations from other agencies of the United States Government or from the competent authorities of countries of origin, transit, and destination.

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

Issued in Washington, D.C.:



for William Schoonover
Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Material Safety Administration, U.S. Department of Transportation, East Building PHH-30, 1200 New Jersey Avenue, Southeast, Washington, D.C. 20590.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at <https://www.phmsa.dot.gov/approvals-and-permits/hazmat/special-permits-search>. Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: Victor Casillas/Kenny Herzog