February 14, 2014

DOT-SP 12526
(FOURTH REVISION)

EXPIRATION DATE: January 31, 2018

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Entegris, Inc.
   San Diego, CA

2. PURPOSE AND LIMITATIONS:
   a. This special permit authorizes the manufacture, mark, sale and use of a gas purification apparatus containing a non-DOT specification stainless steel pressure vessel for the transportation in commerce of the materials authorized by this special permit. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.
   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 use as a component of another device, or other uses not associated with transportation in commerce.


4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 173.212 and 173.213 in that a non-DOT specification pressure vessel is not authorized, except as specified herein; and § 176.83 in that the away from segregation requirement is not required for the storage of Division 4.1 and Division 4.2 materials in the same cargo hold.
5. **BASIS:** This special permit is based on the application of Entegris, Inc. dated December 18, 2013, submitted in accordance with § 107.109.

6. **HAZARDOUS MATERIALS (49 CFR § 172.101):**

<table>
<thead>
<tr>
<th>Hazardous Material Description</th>
<th>Hazard Class/Division</th>
<th>Identification Number</th>
<th>Packing Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-heating solid, inorganic, n.o.s. (Nickel mixture)</td>
<td>4.2</td>
<td>UN3190</td>
<td>II</td>
</tr>
<tr>
<td>Manganese resinate</td>
<td>4.1</td>
<td>UN1330</td>
<td>III</td>
</tr>
</tbody>
</table>

7. **SAFETY CONTROL MEASURES:**

a. **PACKAGING** - Prescribed packaging is a non-DOT specification pressure vessel manufactured from 316L stainless steel that is designed, manufactured, and tested in accordance with Section VIII, Division 1 of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code but not ASME Code “U” stamped. The pressure vessel must be as shown on Aeronex drawing 20-02337-XXX on file with the Office of Hazardous Materials Safety Approvals and Permits Division (OHMSAPD). The pressure vessel has a maximum allowable working pressure of 200 psig and a minimum design burst pressure of 700 psig. The pressure vessel is not equipped with a pressure relief device.

b. **TESTING** - Prior to offering a new or refilled pressure vessel for transportation, each pressure vessel must be inspected to verify leak-tightness. A pressure vessel that has a leak is not authorized for transportation.

c. **OPERATIONAL CONTROLS** -

   (1) Each pressure vessel must be shipped at atmospheric pressure and padded with no more than 5 psig of dry nitrogen.

   (2) The pressure vessel must be shipped inside a National Electrical Manufacturer’s Association NEMA 4 or NEMA 12 enclosure as shown in Aeronex drawing number 20-02337-XXX on file with OHMSAPD.
(3) Each pressure vessel may not contain more than 4.5 kilograms of self-heating solid, inorganic, n.o.s. and no more than 8.5 kilograms of manganese resinate. Pressure vessels containing the self-heating solid, inorganic, n.o.s. and the manganese resinate may not be shipped in the same NEMA enclosure.

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

8. SPECIAL PROVISIONS:

a. In accordance with the provisions of Paragraph (b) of § 173.22a, persons may use the packaging authorized by this special permit for the transportation of the hazardous materials specified in paragraph 6, only in conformance with the terms of this special permit.

b. A person who is not a holder of this special permit, but 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 offered for transportation in conformance with this special permit and the HMR.

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

d. Each packaging manufactured under the authority of this special permit must be either (1) marked with the name of the manufacturer and location (city and state) of the facility at which it is manufactured or (2) marked with a registration symbol designated by the Office of Hazardous Materials Safety Approvals and Permits Division for a specific manufacturing facility.

e. A current copy of this special permit must be maintained at each facility where the package is manufactured under this special permit. It must be made available to a DOT representative upon request.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo vessel, and cargo aircraft only.
10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each cargo vessel or aircraft used to transport packages covered by this special permit. The shipper must furnish a copy of this special permit to the air carrier before or at the time the shipment is tendered.

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:

- All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
- 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.
- 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.:

[Signature]

for Dr. Magdy El-Sibaie
Associate Administrator for Hazardous Materials Safety


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). Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: cwf/dl