1. **GRANTEE:** Autoclave Engineers
   Division of Snap-tite, Inc.
   Erie, PA

2. **PURPOSE AND LIMITATIONS:**
   
   a. This special permit authorizes the manufacture, mark, sale and use of a non-DOT specification stainless steel cylinder conforming with all regulations applicable to a DOT Specification 3A cylinder, except as specified herein, for the transportation in commerce of the compressed gases listed in paragraph 6 below. 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.

3. **REGULATORY SYSTEM AFFECTED:** 49 CFR Parts 106, 107 and 171-180.

4. **REGULATIONS FROM WHICH EXEMPTED:** 49 CFR §§ 173.302a(a)(1) and 173.304a(a)(1) in that non-DOT specification cylinders are not authorized, except as specified herein.

5. **BASIS:** This special permit is based on the application of Autoclave Engineers dated April 29, 2010, submitted in accordance with § 107.109 and additional information of October 18, 2010.
6. HAZARDOUS MATERIALS (49 CFR § 172.101):

<table>
<thead>
<tr>
<th>Hazardous Materials Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Proper Shipping Name</strong></td>
</tr>
<tr>
<td>Liquefied or nonliquefied compressed gases, or mixtures of such compressed gases which are authorized in the HMR for transportation in DOT 3A cylinders.</td>
</tr>
</tbody>
</table>

7. SAFETY CONTROL MEASURES:

a. PACKAGING – Prescribed packaging is a non-DOT specification stainless steel cylinder made in accordance with Autoclave Engineers Drawings 40A-8828-0, 30A-1354-9, 20B-1626-4, 30B-0598-0, 10B-4602-4 and specifications MS11-064, MS11-053, AES-346, 62633, 62634 on file with the Office of Hazardous Materials Special Permits and Approvals (OHMSPA) and in compliance with the general requirements for specification cylinders (§ 178.35) and DOT-3A specification (§ 178.36) except as follows:

§ 178.35(c) Duties of inspector.

(1), (2), (3) * * *

(4) In place of the test report required for DOT specification cylinders, a letter was submitted by an independent inspection agency describing the design and construction process. This letter is on file with OHMSPA.

§ 178.35(f)(1)(i) Markings. In place of the "DOT-3A" specification mark, each cylinder must be marked "DOT-SP 12334" followed by the service pressure in bar.
§ 178.35(g) Inspector’s report. A report containing the information listed in CGA Pamphlet C-11 is not required.

§ 178.35(h) Report retention. Test reports prepared for the cylinders manufactured under this special permit must be retained as long as the cylinders are in use.

§ 178.36(h) Openings in the cylinders and connections (valves, fuse plug, etc.) for those openings. The cylinder is closed by inserting a spring into a concentric groove in both the cylinder cap and cylinder shoulder. The groove acts as a straight thread with a pitch of zero. The attached shear strength must be 10 times the test pressure.

§ 178.36(j) Flattening test. Not required.

§ 178.36(k) Physical test. Physical testing must be performed as required for ASME SA-182 and SA-370 materials. Minimum elongation must be at least 40 percent for a 2 inch gauge length. Test data are on file with OHMSPA.

b. TESTING - Each cylinder must be requalified at least every five years in accordance with § 180.205 as prescribed for a DOT-3A cylinder. Cylinders requalified after having been subjected to the action of fire must be reported to Office of Hazardous Materials Special Permits and Approvals (OHMSPA) prior to being placed back in service.

c. OPERATIONAL CONTROLS -

(1) Cylinders manufactured under this special permit may not have a water capacity exceeding 600 ml (36.60 in³).

(2) Cylinders may not be filled to a pressure exceeding the marked service pressure of 56.9 bar (825 psi) at 21°C (70°F).
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 modifications or changes are 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 Special Permits and Approvals 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.

f. Transportation of Division 2.1 (flammable gases) and Division 2.3 materials (gases which are poisonous by inhalation) are not authorized aboard aircraft unless specifically authorized in the Hazardous Materials Table (§ 172.101).

g. The transportation of oxygen by aircraft is only authorized when in accordance with § 175.501.

9. **MODES OF TRANSPORTATION AUTHORIZED:** Motor vehicle and cargo aircraft only.
10. **MODAL REQUIREMENTS:** A current copy of this special permit must be carried aboard each aircraft used to transport packages covered by this special permit. The shipper must furnish a current 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, 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. Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit prohibited.

PO: MToughiry/dl