



U.S. Department  
of Transportation

Research and  
Special Programs  
Administration

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

**DOT-E 6672 (EXTENSION)**  
**FIFTH REVISION November 5, 1980**

In accordance with 49 CFR 107.105 of the Department of Transportation (DOT) Hazardous Materials Regulations DOT-E 6672 is hereby extended for the party(ies) listed below by changing the expiration date in paragraph 10 to September 30, 1994. This change is effective from the issue date of this extension. All other terms of the exemption remain unchanged.

This extension applies only to party(ies) listed below based on the application(s) received in accordance with 49 CFR 107.105. This extension constitutes a necessary part of this exemption and must be attached to it.

*J. Suzanne Hedgpeth*  
Alan I. Roberts  
Associate Administrator  
for Hazardous Materials Safety

MAR 31 1993

(DATE)

Dist: FHWA FRA FAA

EXEMPTION HOLDER

APPLICATION DATE

Chandler Evans, Inc.  
West Hartford, CT

February 22, 1993

*Expired- Not Active  
NO RENEWAL*



DEPARTMENT OF TRANSPORTATION  
RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

WASHINGTON, D.C. 20590  
DOT-E 6672  
(FIFTH REVISION)

1. Chandler Evans Inc., West Hartford, Connecticut, is hereby granted an exemption from those provisions of this Department's Hazardous Materials Regulations specified in paragraph 5 below to manufacture, mark, and sell the packaging described in paragraph 7 below for use on the transportation of certain non-liquefied compressed gases described in paragraph 3 below in commerce subject to the limitations and special requirements specified herein. This exemption authorizes the use of non-DOT Specification cylinders for the transportation of helium, argon or nitrogen, and provides no relief from any regulation other than as specifically stated.
2. BASIS. This exemption is based on Chandler Evans Inc.'s application dated September 11, 1980, submitted in accordance with 49 CFR 107.105 and the public proceeding thereon.
3. HAZARDOUS MATERIALS (Descriptor and class). Missile cold gas actuation system, classed as a nonflammable gas.
4. PROPER SHIPPING NAME (49 CFR 172.101). Helium, Argon, or Nitrogen, as appropriate.
5. REGULATION AFFECTED. 49 CFR 173.302(a)(4), 175.3.
6. MODES OF TRANSPORTATION AUTHORIZED. Motor vehicle, rail freight and cargo-only aircraft.
7. SAFETY CONTROL MEASURES.
  - a. Packaging prescribed is welded or seamless, nonrefillable, non-DOT Specification steel cylinders (including spheres and toroids) made as described in specifications and/or drawings on file with the Office of Hazardous Materials Regulation (OHMR) and in compliance with DOT Specification 39 (§ 178.65) except as follows:
    - § 178.65-2(b) - Maximum size may not exceed 175 cu. in.
    - § 178.65-2(c) - Marked service pressure may not exceed 85% of the test pressure. Maximum service pressure may not exceed 12,000 p.s.i.g.
    - § 178.65-3 - Independent inspector's agent must be approved in writing by the Associate Director for Office of Enforcement (OE).
    - § 178.65-4(c)(2) - Disinterested inspector (per §173.300a) must verify proper heat treatment after welding and prior to test.
    - § 178.65-5(a)(1) - The steel analysis must conform to that shown in § 178.44-5 (Specification 3HT).

§ 178.65-7(a) - The minimum wall thickness must be such that the wall stress at test pressure does not exceed either of the following:

- 1. The yield strength of the material of the finished cylinder wall.
- 2. 110,000 psi.

§ 178.65-11(b)(1) - A failure occurs at a gage pressure less than 2.36 times the service pressure.

§ 178.65-12(a)(3) - \* \* \* \* \*  
Flattening between flat plates is authorized.

§ 178.65-12(a)(4) - Cylinders or test rings must not crack when flattened so their outer surfaces are not more than ten times wall thickness apart.

§ 178.65-14(b)(1) - Cylinders may not be marked "DOT-39" but instead, must be marked "DOT-E 6672."

b. Cylinders must be shipped in strong outside packagings in accordance with § 173.301(k). Package must be capable of withstanding a twelve foot drop onto solid concrete without damage to the pressure vessel or leakage of gas.

8. SPECIAL PROVISIONS.

a. Shippers may use the packaging(s) covered by this exemption pursuant to the provisions of 49 CFR 173.22a.

b. A copy of this exemption must be carried aboard each aircraft used to transport packages covered by this exemption.

9. REPORTING REQUIREMENTS. Any incident involving loss of contents of the package must be reported to the OHMR as soon as practicable.

10. EXPIRATION DATE. November 4, 1982.

Issued at Washington, D.C.:

*J. Roberts for*  
 Alan I. Roberts  
 Associate Director for  
 Hazardous Materials Regulation  
 Materials Transportation Bureau

5 NOV 1980

(DATE)

Address all inquiries to: Associate Director for Hazardous Materials Regulation, Materials Transportation Bureau, Research and Special Programs Administration, U.S. Department of Transportation, Washington, D.C. 20590. Attention: Exemptions Branch.

Dist: FAA, FHWA, FRA