



U.S. Department
of Transportation
**Research and
Special Programs
Administration**

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

NOV 6 2001

DOT-E 7607
(EIGHTH REVISION)

EXPIRATION DATE: September 30, 2003

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Thermo Environmental Instruments, Inc.
Franklin, MA
(Former Grantee: Foxboro Environmental)
2. PURPOSE AND LIMITATIONS:
 - a. This exemption authorizes the manufacture, mark, sale and use of a non-DOT specification cylinder for the transportation in commerce of hydrogen compressed by passenger carrying aircraft. This exemption provides no relief from any Hazardous Materials Regulation (HMR) 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.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 172.101 in that hydrogen is forbidden on passenger aircraft and §§ 173.306 and 175.3 in that non-DOT specification cylinders are not authorized.
5. BASIS: This exemption is based on the application of Foxboro Environmental dated February 22, 2000, and additional information from Thermo Environmental Instruments dated October 18, 2001 and October 19, 2001, submitted in accordance with § 107.109.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Proper Shipping Name/ Hazardous Material Description	Hazard Class/ Division	Identi- fication Number	Packing Group
Hydrogen, compressed	2.1	UN1049	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packaging prescribed is a non-DOT specification seamless stainless steel cylinder of not more than 7.22 cubic inches water capacity; each cylinder must be pressure tested to at least 4000 psig without leak or failure, and charged to not more than 2200 psig at 70°F. The cylinder is a component of a portable gas chromatograph and must be manufactured as shown on the drawing identifying Part # CR011WC for the TVA1000B cylinder and Part # 540055-1 for the OVA cylinder, on file with the Office of Hazardous Materials Exemptions and Approvals (OHMEA). The gas chromatograph must be appropriately secured to prevent movement during transportation.

b. MARKING - The outside of each package must be plainly and durably marked "DOT-E 7607".

c. OPERATIONAL CONTROLS - Each device must be shipped in a strong outside packaging as prescribed in § 173.301(k).

8. SPECIAL PROVISIONS:

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

b. A person who is not a holder of this exemption, but receives a package covered by this exemption, 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 exemption and the HMR.

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

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d. Each packaging manufactured under the authority of this exemption must be marked with a registration symbol designated by the Office of Hazardous Materials Exemptions and Approvals for a specific manufacturing facility.

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

9. MODES OF TRANSPORTATION AUTHORIZED: Passenger-carrying aircraft.

10. MODAL REQUIREMENTS:

a. A current copy of this exemption must be carried aboard each aircraft used to transport packages covered by this exemption. The shipper shall furnish a copy of this exemption to the air carrier before or at the time the shipment is tendered.

b. The pilot-in-command must be advised when the gas chromatograph is placed on board the aircraft.

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. 5101 et seq:

- o All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, Parts 171-180.
- 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 exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 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

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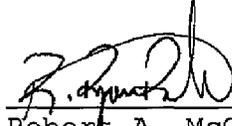
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Hazardous Materials Safety (AAHMS) as soon as practicable. (Sections 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the holder(s) of this exemption must also inform the AAHMS, in writing, as soon as practicable of any incidents involving the package and shipments made under this exemption.

Issued at Washington, D.C.

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Robert A. McGuire
Associate Administrator for
Hazardous Materials Safety

(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.

Copies of exemptions may be obtained from the AAHMS, U.S. Department of Transportation, 400 7th Street, S.W., Washington, DC 20590-0001, Attention: Records Center, 202-366-5046.

PO: KFW