



U.S. Department
of Transportation

Research and
Special Programs
Administration

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

APR 27 2004

DOT-E 10684
(SEVENTH REVISION)

EXPIRATION DATE: March 31, 2006

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Chart Industries, Inc.
Storage Systems Division
New Prague, Minnesota
2. PURPOSE AND LIMITATIONS: This exemption authorizes the manufacture, marking and sale of non-DOT specification insulated portable tanks to be used for the transportation in commerce of nitrogen, refrigerated liquid (Division 2.2). This exemption provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.318, § 173.320, § 176.30, § 176.76(g), in that a non-DOT specification portable tank is not authorized, except as specified herein.
5. BASIS: This exemption is based on the application of Chart Industries, Inc. dated December 8, 2003, submitted in accordance with § 107.109.

APR 27 2004

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous materials description - - proper shipping name	Hazard Class/ Division	Identi- fication Number	Packing Group
Nitrogen, refrigerated liquid (cryogenic liquid)	2.2	UN1977	N/A

7. SAFETY CONTROL MEASURES:

a. Prescribed packaging is a non-DOT specification portable tank designed and constructed in accordance with Section VIII of the ASME Code and subparagraphs a. or b. of this paragraph. The portable tank is skid-mounted or enclosed in a carbon steel protective frame. The portable tank is vacuum-insulated. For the inner tank, design pressure is 120 PSIG, design temperature is -320°F., and water capacity is 1000 US gallons nominal. Materials of construction are SA 240 Type 304 stainless steel for the inner tank, and SA 36, ASTM A 283 or equivalent carbon steel for the outer jacket and protective frame.

b. Each portable tank must conform to Minnesota Valley Engineering Inc.'s drawings B-39499 Rev.0, D-38975 Rev.0, D-38976 Rev.0, D-38977 Rev.0, D-39146, Rev.0, other related drawings all dated August 29, 1991; and calculations on file with the Office of Hazardous Materials Exemptions and Approvals (OHMEA).

c. The packagings authorized are Minnesota Valley Engineering Inc.'s Model HL-1000SP-120-WELLNITE cryogenic portable tanks with Serial Nos. 109, 110, 111, 112, and 113 for which ASME U-1A forms are on file with OHMEA.

d. Tanks other than those specified in Paragraph 7 b. of this exemption are not authorized unless corresponding drawings, calculations and ASME U1-A forms are submitted and on file with OHMEA prior to first shipment.

e. The packagings must conform with § 178.338 except as follows:

- (1) Impact testing is not required on the stainless steel or nickel steel inner tank material.
- (2) § 178.338-10 does not apply.
- (3) The portable tank need not conform to § 178.338-(13)(a) or (b). Lifting lugs, framework and any anchoring to the inner tank or the tank jacket must conform with § 178.338-13(a).
- (4) A portable tank that meets the definition of "container" must meet the requirements of 49 CFR parts 450 thru 453, and each design must be qualified in accordance with § 178.270-13(c).
- (5) "DOT-E 10684" must replace the mark "MC 338".

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.
- d. Each packaging manufactured under the authority of this exemption 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 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.

f. Each portable tank must be reinspected and retested at a pressure of 14.7 plus one and one-fourth times the sum of the design pressure plus the static head, once every 5 years in accordance with § 180.605(c) as prescribed for DOT 51 specification portable tanks. In place of the requirement for visual inspection per § 180.605(d), before and after vacuum readings must be used to determine leakage. Nitrogen may be used as a test medium in place of (air or hydrostatic) as required by § 180.605(h).

g. Each portable tank must be plainly marked on both sides near the middle, in letters and numerals at least two (2) inches high on a contrasting background, "DOT-E 10684".

h. Each portable tank must be prepared and shipped as required in § 173.318, as applicable for the lading.

i. No person may transport a charged portable tank unless the pressure of the lading is equal to or less than that used to determine the marked rated holding time and the OWTT equal to or greater than the elapsed time between the start and the termination of travel.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle and cargo vessel.

10. MODAL REQUIREMENTS:

a. A current copy of this exemption must be carried aboard each cargo vessel or motor vehicle used to transport packages covered by this exemption.

b. Shipments by cargo vessel must conform with the following:

(1) The package must conform with § 176.76(g). The portable tank must not be overstowed with other containers or freight.

(2) Any lading road relief valve set at a pressure lower than that prescribed for the (safety) pressure relief valve must be closed during transportation by cargo vessel.

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 Persons operating under the terms of this exemption 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 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 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 in Washington, D.C.



fa
Robert A. McGuire
Associate Administrator for
Hazardous Materials Safety

APR 27 2004

(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.

Copies of this exemption may be obtained by accessing the Hazardous Materials Safety Homepage at <http://hazmat.dot.gov/exemptions> Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

PO: PTO/sdc