U.S. Department
of Transportation

**Research and
Special Programs
Administration**

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

JUN 17 1996

DOT-E 11658
(SECOND REVISION)

EXPIRATION DATE: **May 31, 1998**

1. GRANTEE: Arbel Fauvet Rail, Douai, France
U.S. Agent: C.J.B. International, Inc., Washington, D.C.

2. PURPOSE AND LIMITATIONS: This exemption authorizes the manufacture, marking and sale of non-DOT specification IMO Type 5 portable tanks which conform with DOT Specification 51 except all openings are not grouped in one location, to be used for the transportation in commerce of Division 2.1 and Division 2.2 materials. This exemption provides no relief from any regulation 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 173.315(a) in that a non-DOT specification packaging is authorized, 178.245-1(b).

5. BASIS: This exemption is based on the application of Arbel Fauvet Rail dated March 11, 1996, and supplemental letters dated April 1, 1996, April 3, 1996, and April 14, 1996, submitted in accordance with 49 CFR 107.103.

6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous materials description -- proper shipping name	Hazard Class/ Division	Identi-fication Number	Packing Group
Butadienes, inhibited	2.1	UN1010	N/A
Butane	2.1	UN1011	N/A
Butylene	2.1	UN1012	N/A
Chlorodifluoromethane, R22	2.2	UN1018	N/A
1-Chloro-1,2,2,2-tetrafluoroethane, R124	2.2	UN1021	N/A
Cyclopropane, liquified	2.1	UN1027	N/A
Dichlorodifluoromethane, R12	2.2	UN1028	N/A

Hazardous materials description -- proper shipping name	Hazard Class/ Division	Identi-fication Number	Packing Group
Dichlorofluoromethane, R21	2.2	UN1029	N/A
1,1-Difluoroethane, R152a	2.1	UN1030	N/A
Dimethylamine, anhydrous	2.1	UN1032	N/A
Dimethyl ether	2.1	UN1033	N/A
Ehtylamine	2.1	UN1036	N/A
Ethyl chloride	2.1	UN1037	N/A
Isobutylene	2.1	UN1055	N\A
Methylamine, anhydrous	2.1	UN1061	N/A
Methyl chloride	2.1	UN1063	N/A
Propylene	2.1	UN1077	N/A
Trimethylamine, anhydrous	2.1	UN1083	N/A
Vinyl chloride, inhibited	2.1	UN1086	N/A
Isobutane	2.1	UN1969	N/A
Chlorodifluoromethane and chloropentafluoroethane mixture with fixed boiling point, with approximately 49 percent chlorodifluoromethane, R502	2.2	UN1973	N/A
Chlorodifluorobromomethane, R12B1	2.2	UN1974	N/A
Propane	2.1	UN1978	N/A
Trifluoroethane, compressed, R143	2.1	UN2035	N/A
1-Chloro-1,1-difluoroethanes, R142b	2.1	UN2517	N/A
Dichlorodifluoromethane and difluoroethane azeotropic mixture with approximately 74 percent dichlorodifluoromethane, R500	2.2	UN2602	N/A
1-Chloro-2,2,2-trifluoroethane, R133a	2.2	UN1983	N/A
1,1,1,2-Tetrafluoroethane, R134a	2.2	UN3159	N/A
Pentafluoroethane, R125	2.2	UN3220	N/A

7. PACKAGING(S) and SAFETY CONTROL MEASURES:

a. PACKAGING - Packaging prescribed is a non-DOT specification steel portable tank, mounted in an ISO frame, that complies with DOT Specification 51, including ASME "U" stamp, except that the fill and discharge openings are located on the bottom of the tank. The tanks are constructed in accordance with Arbel Fauvet Rail drawings C.1.609828 and C.0.609829, other drawings, specifications, and calculations on file with the Office of Hazardous Materials Exemptions and Approvals (OHMEA) and in compliance with the following:

(1) Code - Tanks must comply with DOT Specification 51 in all respects except that fill and discharge openings are located on the bottom of the tank.

(2) Material - SA-612 carbon steel.

(3) Water Capacity (US Gallons) - 4887.

(4) Insulation - None. Tank provided with sunshield.

(5) Baffles - 2.

(6) Tank Size (inches) -

(Outside Diameter)	X	(Length)	X	(Thickness)
82.68		233.46		0.740

Head Thickness - 0.685 (minimum)

Weld Joint Efficiency - 1

Corrosion Allowance - 0.0

(7) Design pressure - 362.6 psig
Note: Design pressure means "Maximum allowable working pressure (MAWP)" as used in the ASME Code.

(8) Test pressure - 543.9 psig

(9) Openings - One (1) openings for 3 inch diameter pressure relief devices on top of the tank; one (1) opening for a 18.5 inch diameter manway on the rear head; one (1) opening for a 2.56 inch diameter vapor phase valve and one (1) opening for a 2.56 inch diameter liquid phase valve on the bottom of the tank and one (1) opening for a 4.72 inch inspection hole on the front head.

NOTE: Each bottom outlet valve must be provided with a shear section that meets the requirements of 49 CFR 178.337-12.

(10) Tank surface area (square feet) - 446.7

(11) Pressure relief devices - One (1) 3 inch diameter spring loaded pressure relief valve outboard of and in series with one (1) 3 inch diameter rupture disc both set at 398.86 psig.

(12) Total relief device capacity - 2,067,003 SCFH

(13) G-loadings - Vertical down - 2, vertical up - 2, longitudinal - 2, transverse - 2.

(14) Maximum gross weight (lbs)- 79,366

(15) Max. commodity weight (lbs) - 59,966

(16) Tare weight (pounds) - 19,400

(17) Design temperature - -4°F to 131°F

(18) Design specific gravity - 1.47

b. TESTING - Each tank must be initially tested as required for DOT Specification 51 portable tanks in 49 CFR 178.245. Each tank must be reinspected and retested once every five years in accordance with 49 CFR 173.32(e) as prescribed for DOT Specification 51 portable tanks.

c. OPERATIONAL CONTROLS -

(1) Each tank must be visually inspected prior to shipment to ensure that it has not been damaged during loading.

(2) No product may be shipped that has a venting requirement exceeding 2,067,003 SCFH. The venting capacity required for each product must be determined by the flow formulas contained in the Compressed Gas Association (CGA) Pamphlet S-1.2.

(3) The tank must be filled by weight in accordance with the provisions of 49 CFR 173.315.

8. SPECIAL PROVISIONS:

a. Offerors for transportation of the hazardous materials specified in this exemption may use the packaging described in this exemption for the transportation of such hazardous materials provided no modifications or changes are made to the packages, all terms of this exemption are complied with, and a copy of the current exemption is maintained at each facility from which such offering occurs.

b. 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.

c. A copy of this exemption, in its current status, must be maintained at each manufacturing facility at which this packaging is manufactured and must be made available to a DOT representative upon request.

d. Shippers using the packaging covered by this exemption must comply with all provisions of this exemption, and all other applicable requirements contained in 49 CFR Parts 171-180.

e. Hydrostatic test certificates for each tank must be maintained by the manufacturer or owner and made available upon request to any representative of the Department of Transportation.

f. MARKING - Each portable tank must be plainly marked on both sides near the middle, in letters and numerals at least two inches high on a contrasting background, "DOT-E 11658". Additionally, "DOT-E 11658" must be stamped on the metal manufacturer's data plate on the line which reads "U.S. DOT Specification No.".

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

10. MODAL REQUIREMENTS:

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

b. Rear end protection for the motor vehicle must meet the requirements of 49 CFR 178.340-8(b) and 393.86.

c. Each portable tank must be secured to the motor vehicle in conformance with the requirements of 49 CFR 393.100 through 393.106.

d. Portable tanks may not be transported in container-on-flat car (COFC) or trailer-on-flat car (TOFC) service except under conditions approved by the Associate Administrator for Safety, Federal Railroad Administration.

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. Section 5101 et seq:

- All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, Parts 171-180.
- Registration required by 49 CFR 107.601 et seq., when applicable.

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. (49 CFR 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.

for Marilyn E. Morris

Alan I. Roberts
Associate Administrator
for Hazardous Materials Safety

JUN 17 1996
(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.

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