U.S. Department
of Transportation

**Research and
Special Programs
Administration**

DEC 15 1993

DOT-E 10973

EXPIRATION DATE: November 1, 1995

(FOR RENEWAL, SEE 49 CFR 107.105.)

1. GRANTEE: Richards-Gregory & Associates Incorporated, Bolingbrook, Illinois.

2. PURPOSE AND LIMITATIONS: This exemption authorizes the manufacture, marking and sale of a reusable, rotationally molded, polyethylene, metal-frame enclosed portable tank as described in paragraph 7 below for use in the transportation in commerce of those Class 8, Class 3 and Division 5.1 described in paragraph 6 below subject to the requirements specified herein and provides no relief from any regulation other than specifically stated. **NOTE:** Reference to 49 CFR sections in this exemption are to regulations in effect on September 30, 1990.

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

4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR Part 173 Subparts D, E and F and 178.19-3 and 178.19-4.

5. BASIS. This exemption is based on an application from Richards-Gregory & Associates Incorporated dated February 25, 1993 submitted in accordance with 49 CFR 107.103 and the public proceeding thereon.

6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous materials description/proper shipping name	Hazard Class/ Division	Identi-fication Number	Packing Group
Class 8 liquids for which a DOT Specification 34 reusable or UN 1H polyethylene container is prescribed in 49 CFR Part 173, and which have no secondary hazards and a vapor pressure of no greater than 14.5 psia at 130°F.		as appro-priate	II, or III
Hydrogen peroxide solution in water containing 52 percent or less hydrogen peroxide by weight.	5.1	UN2014	II
Isopropyl, and methyl alcohols including water solutions thereof.	3	UN1219, UN1230	II
Class 3 liquids compatible with polyethylene which have no secondary hazards except as covered under ORM-E or Class 9 and have a flash point of 73°F or higher	3	as appro-priate	II, or III
Class 3 liquids with a flash point below 73°F which have been specifically identified to, and acknowledged in writing by, the Office of Hazardous Materials Exemptions and Approvals (OHMEA) prior to the first shipment.	3	as appro-priate	II

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packagings prescribed are non-DOT specification rotationally molded polyethylene portable tanks of up to 330-gallon capacity, with a minimum polyethylene thickness at any point of 0.165 inches, and enclosed within a protective rigid metal frame, as shown on or represented by Richards-Gregory & Associates Incorporated drawing numbers:

C-175 dated FEB 19, 1993, and
11-10220 Rev A dated 3-18-91.

Each tank must be made of Exxon's Linear Escorene* LL-8361 polyethylene resin which has been specifically identified and is acceptable to the OHMEA and be in compliance with the provisions of 49 CFR 178.19 except as specifically modified in the following paragraphs:

i. 178.19-3 - Does not apply.

ii. 178.19-4 - Does not apply.

b. TESTING - At least one prototype portable tank must be shown to have satisfactorily withstood the drop test and hydrostatic pressure test prescribed in 49 CFR 178.19-7(a) as modified herein, the stacking and lifting device (if applicable) test(s) prescribed in 49 CFR 178.251-5(a)(2), and the vibration test prescribed in 49 CFR 178.253-5(a)(1). Further, sufficient quality assurance in manufacture must be maintained to ensure each tank produced be capable of satisfactorily passing these minimum performance criteria. 178.19-7(a)(3) - Changed to read:

i. At least one prototype portable tank must be shown to have satisfactorily withstood the drop test and hydrostatic pressure test prescribed in 49 CFR 178.19-7(a), the stacking and lifting device (if applicable) test(s) prescribed in 49 CFR 178.251-5(a)(2), and the vibration test prescribed in 49 CFR 178.253-5(a)(1).

ii. The tests prescribed in 49 CFR 178.19-7(a) must be repeated on at least one portable tank at 4-month intervals.

iii. Each portable tank must be tested by retaining for 5 minutes, hydrostatic pressure of at least 15 psig at equilibrium without leakage or pressure drop.

iv. Sufficient quality assurance in manufacture must be maintained to ensure each tank produced is capable of satisfactorily passing the tests specified in paragraph 7.b.i. above.

c. MARKING - (i) The sides of each portable tank must be marked "KEEP THIS END UP" in two places, 180° apart, with an arrow pointing to the tank top. Each portable tank must be plainly marked on both sides near the middle, in letters at least two inches high on a contrasting background, "DOT-E 10973".

(ii) 178.19-6(a) - Does not apply. Instead, each portable tank must be permanently marked by embossment or with a metal certification plate permanently affixed to each tank. Where the tank is marked by embossment on the polyethylene unit, the serial number and date of manufacture may be etched or stamped into the polyethylene. Where stamping or etching is performed on the tank, the marked area may not be reduced below the minimum thickness prescribed herein.

The markings must be in letters and numbers at least 1/4 -inch high located on the side of the tank. The markings shall be understood to certify that the portable tank complies with all requirements of this exemption and must contain at least the following information:

Tank manufacturer_____
Test pressure: 15 psig.
Serial number_____
Date of manufacture
(month and year)_____
Tare weight_____lbs.
Rated gross weight_____lbs.
Capacity_____U.S. gallons

d. PRESSURE RELIEF - Portable tanks for hydrogen peroxide must have a vented closure to prevent accumulation of internal pressure. Each tank, regardless of commodity shipped, must be fitted with a pressure relief device that will limit the pressure in the tanks to 15 psig and in accordance with 49 CFR 178.253-4 except as follows:

(i) 178.253-4(c)(1) - The pressure relief device must open at not less than 10 psig and not over 15 psig. The minimum venting capacity for pressure activated vents must be 6,000 SCFH at not more than 15 psig.

(ii) 178.253-4(c)(3) - Any fusible device used will function at a temperature no greater than 250°F. The vapor pressure in the tank may not exceed 15 psig when the device functions.

e. REUSE - Reuse of any portable tank must be in accordance with the applicable requirements of 49 CFR 173.28 and 173.32(f) as modified herein.

(i) Each portable tank must be hydrostatically retested in accordance with 49 CFR 173.32(f) as applicable to DOT Specification 57 tanks, at a test pressure of 15 psig for 5 minutes without a drop in pressure or leakage. Any tank that fails must be rejected and may not be used again for the transportation of hazardous materials.

(ii) The date of the most recent periodic retest must be marked on the tank near the tank identification markings required in paragraph 7.c. of this exemption. The owner of the tank or his authorized agent must retain a written record indicating the date and results of all required tests and the name and address of the tester, until the next retest has been satisfactorily completed and recorded.

f. OTHER REQUIREMENTS -

(i) Any changes in design, resin, or process methods must be approved by the OHMEA prior to change. Prototype test results for at least one tank involving the drop, hydrostatic pressure, stacking and lifting device tests, and vibration tests required in paragraph 7.b. of this exemption must accompany any request for changes in design, resin, or process method.

(ii) Portable tanks with repaired bodies are not authorized.

(iii) Fittings must be protected in accordance with 49 CFR 178.253-3.

(iv) Commodities shipped must be compatible with the polyethylene portable tank, and may not permeate the polyethylene to an extent that a hazardous condition could be caused during transportation and handling.

(v) The tanks must be molded from Exxon's Escorene LL-8361 linear low density polyethylene resin meeting the specifications on file with OHMEA.

(vi) Tanks must always be filled and shipped while enclosed within the protective wire frame as shown in the petitioner's application.

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 so long as 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 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.

9. MODES OF TRANSPORTATION AUTHORIZED. Motor vehicle and Rail freight.

10. MODAL REQUIREMENT. A copy of this exemption must be carried aboard each motor vehicle used to transport packages covered by this exemption.

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 Hazardous Materials Transportation Act:

- 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 unless a regulation has been amended making the exemption no longer necessary.

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.

DEC 15 1993

Alan I. Roberts
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, DC 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.

Dist: FHWA, FRA.