U.S. Department
of Transportation

**Research and
Special Programs
Administration**

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

DEC 13 1991

DOT-E 10682

1. K.T. Specialties Incorporated, Corona, California, is hereby granted an exemption from certain provisions of this Department's Hazardous Materials Regulations to manufacture, mark, and sell the packaging described in paragraph 7 below for use in the transportation in commerce of the hazardous materials described in paragraph 3 below subject to the requirements specified herein. This exemption authorizes the use of non-DOT specification cargo tanks manufactured from glass fiber reinforced plastics (GFRP), and provides no relief from any regulation other than as specifically stated.

2. BASIS. This exemption is based on K.T. Specialties, Incorporated's application dated July 17, 1991, submitted in accordance with 49 CFR 107.103 and the public proceeding thereon.

3. HAZARDOUS MATERIALS (Descriptor and class). Corrosive materials, authorized to be transported in a lined MC-312 cargo tank, that are compatible with the cargo tank material, classed as corrosive material; liquid and semi-solid waste material, including mixtures, compatible with the cargo tank, containing flammable liquids or corrosives or poisonous B materials, or combinations thereof, classed as flammable liquid, corrosive material or poison B, as appropriate.

4. PROPER SHIPPING NAME (49 CFR 172.101). Specific commodity name, or generic description, as appropriate. When transporting hazardous wastes, the word "Waste" shall precede the specific commodity name or generic description.

5. REGULATION AFFECTED. 49 CFR Part 173, Subpart F as applicable, 173.119(a) and (m), 173.346(a), 178.340, 178.342, 178.343.

6. MODES OF TRANSPORTATION AUTHORIZED. Motor vehicle.

Expired - Not Active
10/31/93

7. SAFETY CONTROL MEASURES.

a. For the transportation of corrosive materials, the packagings prescribed are non-DOT specification glass fiber reinforced plastics (GFRP) cargo tanks having a design pressure of 35 psig. Tanks may have an inside diameter between 48 to 60 inches and a water capacity between 3,600 to 5,700 gallons. Tanks must be designed and constructed in accordance with Composite Engineering drawings CE-101-88A and CE-102-88 through CE-105-88 dated November 3, 1988, calculations, and technical specifications on file with the Office of Hazardous Materials Exemptions and Approvals (OHMEA). The GFRP cargo tanks must be in full compliance with DOT Specification MC-312 (49 CFR 178.340 and 178.343) cargo tanks except as follow:

1.	§§178.340-3, 178.343-2(a)	-	Type of material does not apply. Instead, tank shell, heads and fittings must be constructed of GFRP in accordance with the data on file with the OHMEA.
2.	§178.340-5	-	Not applicable.
3.	§178.340-7	-	Reinforcement provided by the GFRP-FOAM-GFRP sandwich construction may be substituted for the circumferential reinforcement prescribed in 49 CFR 178.340-7 provided the resultant reinforcement produces a structural integrity at least equal to that prescribed in 49 CFR 178.340-4(b).
4.	§178.340-10(b)(1)	-	DOT-E 10682 must be stamped on the line which reads "Specification identification" on the metal certification plate.

4.	§178.340-9	-	Vacuum pumps and separators may not be mounted on the cargo tanks shell or heads.
5.	§178.340-10(b)(1)	-	DOT-E 10682 must be stamped on the line which reads "Specification identification" on the metal certification plate.
6.	§178.340-10(c)	-	The manufacturers's certificate retained by the motor carrier must be appropriately modified to reflect compliance with the terms of this exemption.
7.	§§178.342-1(b), 178.343-1(c)	-	Tanks must have a minimum internal design pressure of 35 psig and a minimum external design pressure of 15 psig. The internal design pressure must be at least equal to the maximum pressure for unloading. Vacuum tanks must have an external design pressure of at least 15 psig. The ASME "U" stamp is not required.

c. Tanks that are to be used in transporting flammable waste materials must be equipped with a spring loaded relief valve.

d. The compatibility of commodities and the GFRP cargo tank shall be based on ASTM C 581 "Standard Test Method for Chemical Resistance of Thermosetting Resins Used in Glass Fiber Reinforced Structures". Test reports must be maintained by the owner or manufacturer for as long as the cargo tank remains in active operation.

8. SPECIAL PROVISIONS.

a. Offerors for transportation of 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. A copy of this exemption must be carried aboard each motor vehicle used to transport packages covered by this exemption.

c. Drivers must have been instructed as to necessary safeguards and proper procedures in the event of unusual delay, fire, or accident.

d. Each cargo tank must be plainly marked on the left side near the front, in letters at least two inches high on a contrasting background, "DOT-E 10682".

e. The Manufacturer's Data Report for the first cargo tank fabricated must be submitted to the OHMEA prior to the initial shipment of hazardous materials.

f. Each cargo tank must be reinspected and hydrostatically retested annually in accordance with 49 CFR Part 180 as prescribed for DOT Specification MC-307 or MC-312 cargo tanks, as appropriate, at one and one-half times the design pressure. The visual inspection shall look for any cracks, delaminations, gouges, debonding at saddles, liner deterioration, and broken items as a minimum.

g. Any repair to the cargo tank not affecting its structural integrity must be made in accordance with the manufacturer's recommendations on file with the OHMEA. Any repair to the cargo tank affecting its structural integrity must be made by the manufacturers and follow the "Maintenance/Quality Retention Requirements for Composite Cargo Tanks Per DOT Specification MC 307/312" submitted by the petitioner's application of July 17, 1991. After repair, the tank must be hydrostatically retested at one and one-half times the design pressure. A record of the repairs made and testing performed must be maintained by the manufacturer for as long as the cargo tank remains in service.

h. The cargo tank manufacturer shall follow the "Quality Assurance Requirements for Production of Composite Cargo Tanks Per DOT Specification MC 307/312" submitted by the petitioner's application of July 17, 1991 and "Qualification Requirements for Composite Cargo Tanks Per DOT Specification MC 307/312" dated February 27, 1989. Hydrostatic test pressure must be maintained for a minimum of five minutes.

i. Shippers using the packaging covered by this exemption must comply with the shipping paper, marking, labeling, and placarding requirements of 49 CFR Part 172; all provisions of this exemption, and all other applicable requirements contained in 49 CFR Parts 100-180.

j. 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.

k. 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.

9. <u>REPORTING REQUIREMENTS:</u>

a. Any incident involving loss of packaging contents or packaging failure must be reported to the Associate Administrator for Hazardous Materials Safety as soon as practicable.

b. Any cracks, delaminations, gouges, debonding or linear deterioration found during the visual inspection that could substantially reduce the structural integrity of the cargo tank must be reported to the OHMEA as soon as practicable.

10. EXPIRATION DATE. October 31, 1993.

Issued at Washington, D.C.

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, U.S. Department of Transportation, Washington, D.C. 20590. Attention: Exemptions Branch.

Dist: FHWA.