U.S. Department
of Transportation

**Research and
Special Programs
Administration**

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

DOT-E 11541
(SECOND REVISION)

EXPIRATION DATE: **October 31, 1998**

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: Kaiser Compositek Corporation, Brea, California

2. PURPOSE AND LIMITATIONS:

   a. This exemption authorizes the manufacture, marking, sale, and use of non-DOT specification fully wrapped carbon-fiber reinforced aluminum lined cylinders for the transportation in commerce of certain compressed gases. This exemption provides no relief from any regulation other than as specifically stated herein.

   b. An exemption authorization to manufacture, mark, sell, and transport only represents certification of safety for a package when it is an article of commerce in transportation. The safety analyses performed in development of this exemption only considered the hazards and risks associated with transportation in commerce. The safety analyses did not consider the hazards and risks associated with consumer use, use as a component of a transport vehicle or other device, or other uses not associated with transportation in commerce.

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

4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR Sections 173.302(a)(1), 173.304(a)(1) and 175.3 in that the prescribed packaging is not authorized therein.

5. BASIS: This exemption is based on the application of Kaiser Compositek dated August 24, 1995, submitted in accordance with 49 CFR 107.105 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
Air, compressed (containing up to 39% by volume oxygen content)	2.2	UN1022	N/A
Argon, compressed	2.2	UN1006	N/A
Carbon Dioxide, compressed	2.2	UN1013	N/A
Helium, compressed	2.2	UN1046	N/A
Nitrogen, compressed	2.2	UN1066	N/A
Oxygen, compressed	2.2	UN1072	N/A
Methane, compressed or Natural gas, compressed	2.1	UN1971	N/A
Hydrogen, compressed	2.1	UN1049	N/A

7. PACKAGING(S) and SAFETY CONTROL MEASURES:

a. PACKAGING - Packaging prescribed is a fully wrapped carbon-fiber reinforced aluminum lined cylinder made in conformance with the following:

Basic Requirements for Fully Wrapped Carbon-Fiber Reinforced Aluminum Lined Cylinders (DOT-CFFC)(Second Revison), dated June 1998, contained in Appendix A of this exemption except for the following:

CFFC-3 SERVICE LIFE -

* * *

1. Kaiser Compositek Corporation must submit a Service Life Extension Plan no later that six months after the issue date of this exemption.

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b. TESTING -

(1) Each cylinder must be reinspected and hydrostatically retested every three years in a water jacket suitable for the determination of the expansion of the cylinder. The hydrostatic test must be conducted in accordance with the test procedure described in DOT CFCC-13 (see Appendix A).

(2) A cylinder must be condemned if the elastic expansion exceeds the marked rejection elastic expansion. Repair of rejected cylinders is not authorized.

(3) Retest dates must be marked on a label securely affixed to the cylinder near the original test date and overcoated with epoxy.

(4) When a hydrostatic retest is repeated as provided for in 49 CFR 173.34(e)(4), only two such retests are permitted.

c. OPERATIONAL CONTROLS -

(1) Cylinders may not be used for underwater breathing purposes.

(2) Cylinders used in oxygen service must conform with 49 CFR 173.302(a)(5)(i) through (a)(5)(iv).

(3) Cylinders manufactured under this exemption are not authorized for use fifteen (15) years after the date of manufacture.

(4) A cylinder that has been subjected to fire may not be returned to service.

(5) Transportation of flammable gases is not authorized aboard aircraft or cargo vessel.

(6) Cylinders must be packaged in accordance with 49 CFR 173.301(k).

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. 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.

c. 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, rail freight, cargo vessel, cargo aircraft only, and passenger aircraft.

10. MODAL REQUIREMENTS:

a. A copy of this exemption must be carried aboard each cargo vessel or 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. See paragraph 7.c.(5) of 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 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.

Each "hazmat employee", as defined in 49 CFR 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 49 CFR 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. (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.

Suzanne Hedgepeth

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, 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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