



U.S. Department
of Transportation

**Research and
Special Programs
Administration**

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

JUN 7 2004

DOT-E 12874
(FIRST REVISION)

EXPIRATION DATE: May 31, 2006

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Zomeworks Corporation
Albuquerque, MN
2. PURPOSE AND LIMITATION:
 - a. This exemption authorizes the transportation in commerce of a machine component containing certain Division 2.2 materials in a manner consistent with the provisions for refrigerating machines and not subject to the Hazardous Materials Regulations (HMR) except as provided in this exemption.
 - b. The safety analyses performed in development of this exemption only considered the hazards and risks associated with transportation in commerce.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR Parts 171 - 180, except as provided in this exemption.
5. BASIS: This exemption is based on the application of Zomeworks Corporation dated May 25, 2004 submitted in accordance with § 107.109.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

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Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Chlorodifluoromethane <i>or</i> Refrigerant gas R22	2.2	UN1018	N/A
1,1,1,2 tetrafluoroethane <i>or</i> Refrigerant gas R 134a	2.2	UN3159	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packaging prescribed is a machine component charged with a nonflammable, non-toxic refrigerant gas considered a "refrigerating machine" as defined in the HMR by §173.307(a)(4). Refrigerating machines authorized under this exemption, when conforming to the following and other provisions of this exemption, are not otherwise subject to the HMR. The packaging meets the following requirements:

(1) The refrigerating machine consists of two canisters connected by a length of copper tubing as follows:

(i) Each canister must be a section of not more than 121 inches in length of not more than 2 inch square steel tubing with a nominal wall thickness of not less than .083 inches, and which is capped by not less than 12 gauge steel caps continuously welded to the canister.

(ii) Canisters are connected by a section of 1/4 inch nominal copper tubing not more than 152 inches in length, silver soldered into the canister.

(iii) One canister is fitted with a copper tubing fill line silver soldered into a hole in the canister and tightly closed by crimping and silver soldering and that canister or the other canister may be fitted with a heat transfer fin connected to the canister by copper tubing silver soldered into holes in one of the canisters.

(iv) In addition, one canister will be fitted with a fusible pressure relief device with a melting point not exceeding 230°C.

(2) The refrigerating machine is charged with not more than 12 kg of one of the authorized non-flammable, non-toxic refrigerant gases such that:

(i) The gauge pressure of the refrigerant gas in the machine component does not exceed 21 bar (305 psig) at 55°C; and

(ii) The liquid phase of the refrigerant does not completely fill the machine component at a temperature of 55°C.

(3) The burst pressure of the canisters is not less than 5 times the charge pressure of the component at a temperature of 55°C.

(4) The refrigerating machine is placed in a specially designed strong outer packaging in such a manner as to provide protection to the component, and prevent excessive movement that could damage the component or cause leaks under conditions normally incident to transportation.

8. SPECIAL PROVISIONS:

a. A person who is not a holder of this exemption who receives a package covered by this exemption may reoffer it for transportation provided no modification or change is made to the package or its contents and it is reoffered for transportation in conformance with this exemption and the HMR.

b. A current copy of this exemption must be maintained at each facility where the package is offered or reoffered for transportation.

c. The marking requirements of §§ 172.203(a) and 172.301(c) are waived.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo vessel, cargo aircraft only, and passenger-carrying aircraft.

10. MODAL REQUIREMENTS: No modal-specific requirements apply to 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. 5101 et seq:
- o All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, 49 CFR 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 this 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 inform the AAHMS, in writing, of any incident involving the package and shipments made under the terms of this exemption.

Issued in Washington, D.C.:



for Robert A. McGuire
Associate Administrator for
Hazardous Materials Safety

JUN 7 2004

(DATE)

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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: DBurger/sln