



U.S. Department  
of Transportation

**Pipeline and  
Hazardous Materials Safety  
Administration**

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

NOV 20 2006

Mr. Eric Kimel  
Air-4Life, Ltd.  
P.O. Box 824  
Nazareth, Illit 17105  
ISRAEL

Reference No. 06-0233

Dear Mr. Kimel:

This is in response to your October 16, 2006 e-mail asking if a non-specification aluminum cylinder with a capacity of four fluid ounces or less is subject to the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) and must be a design approved by the Department of Transportation (DOT). You state your company's cylinder has a volumetric capacity of 95 cubic centimeters (3.21 ounces), a maximum working pressure of 220 bars (3,190 psi), is composed of 7075 high-strength aluminum, and will be used to transport "UN 1072, Oxygen, compressed, 2.2, 5.1" (non-flammable gas, oxidizer). It is your understanding that cylinders meeting this description are not subject to DOT approval and when filled can be shipped without restriction by aircraft, highway, vessel, and rail.

Your understanding is correct that the cylinder's design does not require DOT approval. However, the filled cylinder must be prepared for transportation and transported in accordance with applicable requirements of the HMR. Under § 173.306(a)(1), a compressed gas placed in a non-specification cylinder with a capacity of four fluid ounces or less may be described and transported as a limited quantity when it conforms with the provisions of this section. This section also excepts a limited quantity from labeling, unless offered for transportation by air, placarding, and specification packaging under the HMR. Further, the provisions in § 173.306(a)(1) and (h) specify that a limited quantity that conforms to § 173.306 (a)(1) and meets the definition of a consumer commodity under § 171.8 may be renamed "Consumer commodity" and reclassified "ORM-D." A compressed gas transported as an ORM-D material is eligible for the exceptions provided in §§ 173.156 and 173.306(h).

I hope this information is helpful.

Sincerely,

Hattie L. Mitchell, Chief  
Regulatory Review and Reinvention  
Office of Hazardous Materials Standards



060233

173.306  
173.156

Edmonson  
§173.306  
Cylinders  
06-0233

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**From:** Eric Kimel [mailto:eric.kimel@air-4life.com]  
**Sent:** Monday, October 16, 2006 9:13 AM  
**To:** INFOCNTR <PHMSA>  
**Subject:** Oxygen Cylinder - tech. question

Dear Sir / Madam,

Our Company developing a product that incorporated inside a small Oxygen Cylinder. After a very thorough reading of the "CFR 49 – Transportation" I'm still not certain what is the answer to the question whether our small cylinder is subject to the CFR and need a DOT approval or, this cylinder is below requirement and therefore, exempt from DOT approval. Below is some technical info about our oxygen cylinder:

Volume of cylinder: 95cc  
Max. work pressure: 220bars (We can work also in a 200bars pressure if makes a different)  
Cylinder material: Aluminum 75-70

In the past, I discussed this issue over the phone with one of your technical engineers and I understood at that time that that based on 173.306 Para. "a". note 1, if the volume of the cylinder is less then 4 OZ (approx. 120grms) then it is exempt from DOT approval and therefore, can be shipped with no restrictions whatsoever in the USA by ground transportation, Air transportation and Sea vessels.

I'm currently discussing options of cooperation with a few U.S. companies and they all raise the fact that I need to have a definite proofed answer to this question in writing from the office of Hazardous Materials Safety in order to proceed.

I'll appreciate any help in solving this issue.

Looking forward to hear from you.

Many Thanks & Best regards,

**Eric Kimel**  
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