



U.S. Department  
of Transportation

**Pipeline and Hazardous  
Materials Safety  
Administration**

MAR 17 2008

1200 New Jersey Avenue, SE  
Washington, D.C. 20590

Mr. Chris A. DuBois  
Product Manager  
Citronix, LP  
3030 SE Loop 820  
Forth Worth, TX 76140

Ref. No.: 07-0174

Dear Mr. DuBois:

This is in response to your August 31, 2007, email requesting clarification on closure requirements for packagings containing hazardous materials transported by aircraft in accordance with the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180).

According to your letter, your company ships liquid hazardous material in combination packages with inner receptacles consisting of 4 ounce or 16 ounce bottles. The closures consist of an ultrasonically sealed foil and plastic material (induction seal) and a screw cap fitted over the seal. The combination package is tested and certified to conform to the UN packaging requirements of Part 178 and the additional requirements of § 173.27. Section 173.27(d) requires each screw-type closure on any packaging to be secured to prevent the closure from loosening due to vibration or substantial change in temperature. It is your understanding that since the bottle is physically sealed without the screw cap, the closure is the induction seal, not the screw cap and the requirements of § 173.27(d) would not apply.

If the tested combination package has inner receptacles fitted with a screw cap, the screw cap must be secured in accordance with § 173.27(d). This applies regardless of whether the inner receptacle also employs an induction seal. If the screw-cap closure is secured in a manner that prevents it from loosening due to vibration or substantial change in temperature, the requirement of § 173.27(d) has been met.

I hope this information is helpful. Please contact us if you require additional assistance.

Sincerely,

Edward T. Mazzullo  
Director, Office of Hazardous  
Materials Standards

**Drakeford, Carolyn <PHMSA>**

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**From:** INFOCNTR <PHMSA>  
**Sent:** Friday, August 31, 2007 11:46 AM  
**To:** Drakeford, Carolyn <PHMSA>  
**Subject:** FW: Request for Formal interpretation of 49 CFR 173.27 (d)

Leary  
§ 171.8  
§ 173.27 (d)  
Definition  
07-0174

Carolyn,

Could you process this as a formal interpretation request for us? Thanks a million! Have a good weekend!

Erin

-----Original Message-----

From: Chris DuBois [mailto:cdubois@citronix.com]  
Sent: Friday, August 31, 2007 11:24 AM  
To: INFOCNTR <PHMSA>  
Cc: Richard Fox  
Subject: Request for Formal interpretation of 49 CFR 173.27 (d)

I am requesting a formal written interpretation of 49 CFR 173.27 (d).

Citronix designs, manufactures and sells industrial continuous inkjet printers all over the world. This includes consumables such as inks, makeups and cleaning solvents. Our fluids are shipped in 4 or 16 ounce bottles which are ultrasonically sealed (the machine punctures the seal like a cartridge) and have a screw cap over the seal. Our complete combination package has been tested and UN certified by an independent lab.

It has been brought to my attention that we may be in violation of 173.27 (d) which states "Each screw-type closure on any packaging must be secured to prevent closure from loosening due to vibration or substantial change in temperature." According to 49 CFR 171.8 closure means a device which closes an opening in a receptacle. Since our bottle is sealed without the cap the closure would actually be the foil/plastic seal and not the screw cap as such 173.27 (d).

Sincerely,

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