



U.S. Department  
of Transportation

**Pipeline and Hazardous  
Materials Safety  
Administration**

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

NOV 25 2015

Mr. Jorge Campos  
Westpak, Inc.  
83 Great Oaks Drive  
San Jose, CA 95119

Reference No. 15-0125

Dear Mr. Campos:

This is in response to your e-mail requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR 171-180) applicable to package testing requirements for a pressurized "keg." In your letter you state that the "keg" is intended to contain 18 liters of "UN3082, Environmentally Hazardous Substance, 9, III" and 2 liters of nitrogen gas. The "keg" is filled with a vacuum system and pressurized to 10 psi. It is your understating that because the nitrogen gas does not exceed a gauge pressure of 200 kPa (43.8 psia), the material contained in the "keg" does not meet the definition of a Division 2.2 material, and as such, the keg does not need to be tested as a single packaging. In addition, you request confirmation that the testing requirements for combination packages may be applied with the "keg" being the inner package and a fiberboard box being the outer package.

In the scenario described the "keg" may be considered an inner packaging of a combination package. As the nitrogen gas contained in the "keg" does not meet the definition of a Division 2.2 material a specification inner packaging prescribed for gases is not required. The completed packaging may be considered a combination package and may tested in accordance with Subpart M of Part 178 for a packaging authorized in § 173.203.

I hope this information is helpful.

Sincerely,

Duane Pfund  
International Standards Coordinator  
Standards and Rulemaking Division

**Goodall, Shante CTR (PHMSA)**

Wiener  
173.115(b)  
Class 2 Division  
15-0125

**From:** Betts, Charles (PHMSA)  
**Sent:** Monday, June 22, 2015 2:06 PM  
**To:** Hazmat Interps  
**Subject:** Fw: Pressurized 20 liter keg treating it as an article  
**Attachments:** 120216 Interpretation Letter.pdf

Please log and assign for response.

Sent from my BlackBerry 10 smartphone on the Verizon Wireless 4G LTE network.

**From:** Jorge Campos <[Jorge@westpak.com](mailto:Jorge@westpak.com)>  
**Sent:** Monday, June 22, 2015 11:25 AM  
**To:** Betts, Charles (PHMSA)  
**Subject:** Pressurized 20 liter keg treating it as an article

Hello Charles,

I just spoke with Mark Toughiry from DOT engineering this morning and he advised that I go through you for the interpretation of treating a pressurized keg at 10 psi. The keg is meant to contain 18 liters of Environmentally hazardous substances, liquid, n.o.s. UN3082, class 9 PG III and 2 liters of nitrogen gas. The keg is filled with a vacuum system and hence pressurized to 10 psi.

Per the discussion, it was stated that per 173.115(b), the definition of a Division 2.2 material (Non-Flammable, Non-Poisonous Compressed Gas), is one that exerts a gauge pressure of 200 kPa (43.8 psia) and does not meet the definition of Division 2.1 or 2.3. Because the material used to pressure the keg shipped by my client, is not classified as a Division 2.1 or 2.3, and exerts a pressure of less than 200 kPa, (in this case 10 psi) it is not classified as a Hazardous Material during shipment. Therefore the keg does not require DOT Certification or a Special Permit. The Interpretation Letter I am attaching provided indicates that the Keg assembly is considered an Article for testing purposes and therefore can be tested as a non-bulk Combination Packaging.

It seems the confusion is to whether or not the material used to pressurize the keg meets the definition of a Hazardous Material. In this case it does not because the gauge pressure is only 10 psi and the material is not a Division 2.1 or 2.3 material. If the pressure was greater than 200 kPa and/or the material met the definition of Divisions 2.1 or 2.3, then the keg would indeed need to be certified as a Single Packaging or would have to fall under a Special Permit.

In short, the keg will be treated as an article for the purposes and tested as a non-bulk combination package (Article contained in a 4G box).

Please let me know if my interpretation is correct or if you have any questions.

Best Regards,

**Jorge Campos**  
Direct (408)600-3436  
Main (408)224-1300



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Washington, D.C. 20590

**FEB 27 2013**

Mr. J.D. Thomas  
Dyno Nobel Inc.  
Simsbury Plant  
660 Hopmeadow Street  
Simsbury, CT 06070

Reference No. 12-0216

Dear Mr. Thomas:

This is in response to your e-mail requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR 171-180) applicable to the packaging for transportation of non-electric detonators. In your letter, you state that the detonators are packaged in a 4G fiberboard "outer" box in a manner that protects and prevents movement of the articles. You also state that the detonator assemblies have a shock tube that is wound in a loop or figure 8 configuration and that they have voids between the coils due to the coils overlapping each other. You ask whether a 4G fiberboard box used as a single packaging for non-bulk materials is a receptacle and whether it would be considered a one-time use receptacle. You also present your concern regarding the requirement to fill the box to 95% when testing.

The 4G fiberboard box is not a receptacle in the context of § 178.602. Your package is a combination package with the articles being the inner packages and the 4G fiberboard box being the outer package. The 95% fill requirement does not apply to articles and, therefore, the testing should take place with the 4G fiberboard box filled as it would be prepared for transportation or as otherwise specified in § 173.602. You must also determine whether additional cushioning, et cetera, should be included in the package and otherwise ensure conformance with §§ 173.24 and 173.24a for general requirements for non-bulk packagings and packages.

With respect to reuse, to reuse a packaging, you must ensure that it conforms to § 173.28, which in part requires that packagings and receptacles used more than once must be in such condition, including closure devices and cushioning materials, that they conform in all respects to the prescribed requirements of the HMR. If your packaging does not conform to

**Drakeford, Carolyn (PHMSA)**

Mc Intyre  
2171.8  
Definitions

**From:** Eckenrode, Andrew.CTR (PHMSA) on behalf of INFOCNTR (PHMSA)  
**Sent:** Wednesday, September 26, 2012 2:32 PM  
**To:** Drakeford, Carolyn (PHMSA)  
**Subject:** FW: interpretation  
**Attachments:** pic19629.jpg

12-02/16

Carolyn,

We received the following request for a formal letter of interpretation

Thanks  
Andrew

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

**From:** [jd.thomas@am.dynonobel.com](mailto:jd.thomas@am.dynonobel.com) [<mailto:jd.thomas@am.dynonobel.com>]  
**Sent:** Monday, September 24, 2012 1:50 PM  
**To:** INFOCNTR (PHMSA)  
**Subject:** interpretation

Dear Hazardous Material Information Center:

Is a 4G fiberboard box used as outer packaging in non-bulk packaging in a single packaging configuration (meaning it does not have any inner packaging) considered a receptacle? Would it be also considered a one time use receptacle?

I package non-electric detonators in a 4G fiberboard outer box that are packaged in such a way that the fit prevents freedom of movement and protects the articles from sources of impact. The detonator assemblies have shock tube that is wound in a loop or figure 8 configuration. When these articles are packed in the box they are snug and once the box is full, we can not put more units in the box. The units do have voids between the coils as the coils overlap each other.

A DOT inspector for our UN POP test facility states that the detonator assemblies do not fill the box to 95% of its volume (required for a receptacle) because of these small voids. This inspector believes that the outer box is a receptacle and/or a one time use receptacle and therefore can not be used for my articles and can only be tested as a receptacle at 95% capacity (which has the definition of volume) . We can not put in another unit, it would burst the box.

Again - is a single packaging 4G fiberboard box used for non-bulk materials a receptacle?

(Embedded image moved to file: pic19629.jpg)

You can see the voids where coils of shock tube complete their figure 8 pattern. The units do not compress and fill the box to a good snug fit.

Best regards,  
J.D. Thomas  
Global Product Management Support / Integration + Packaging + Change Management

Dyno Nobel Inc.

A business of Incitec Pivot Limited

Simsbury Plant, 660 Hopmeadow Street, P.O. Box 2006, Simsbury, CT 06070, USA

Office: +1 860 408 1839 | Fax: +1 860 408 1983 | Mobile: +1 860 713 3013 <mailto:jd.thomas@am.dynonobel.com>

<http://www.dynonobel.com>

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