



U.S. Department  
of Transportation

**Pipeline and Hazardous  
Materials Safety  
Administration**

1200 New Jersey Avenue, SE  
Washington, DC 20590

FEB 14 2018

Wade Winters  
President  
Regulatory Resources, Inc.  
379 Aragon Avenue  
Los Alamos, NM 87547

Reference No. 17-0064

Dear Mr. Winters:

This letter is in response to your June 6, 2017, email and subsequent phone conversations requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to highway segregation requirements. Specifically, you provide scenarios in which different combinations of Class 3 and Division 5.1 materials are being offered for highway transportation in quantities that require labels.

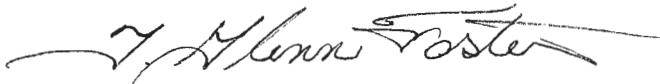
We have paraphrased and answered your questions as follows:

- Q1. You ask whether packages of two different hazardous materials (i.e., Class 3 and Division 5.1) may be loaded together without regard to the segregation requirements in § 177.848 if these materials do not react dangerously with each other.
- A1. The answer is no. Stability of the materials when commingled does not allow a shipper to disregard the segregation requirements in § 177.848. The segregation requirements in § 177.848 must be followed for all applicable hazards stored, loaded, or transported with other packages of hazardous materials. The letter "O" appears in the entry on the Segregation Table for Class 3 and Division 5.1 materials, which indicates that these materials must be separated to prevent commingling if packages were to leak.
- Q2. You ask whether "mixed contents" packages prepared in accordance with § 173.24a(c), containing inner receptacles of Class 3 and Division 5.1 materials, may be loaded together without regard to the segregation requirements in § 177.848 if these materials do not react dangerously with each other.
- A2. The answer is no. Packages containing "mixed contents" cannot violate the segregation requirements established for the mode of transportation used. Therefore, Class 3 and Division 5.1 materials cannot be placed in the same outer package under the mixed contents requirements in § 173.24a(c), because § 177.848 requires separation for these materials.

- Q3. You ask whether a Class 3 material with a subsidiary hazard of Division 5.1 may be packaged with other Class 3 materials in a “mixed contents” package if these materials do not react dangerously with each other.
- A3. The answer is yes. Section 177.848(e)(6) waives the segregation requirements between the subsidiary “secondary” hazard and other materials in the same primary hazard class, provided these materials do not react dangerously with each other. A package containing a primary Class 3 material with a subsidiary hazard of Division 5.1 could be transported with other primary Class 3 materials, provided they were not capable of reacting dangerously.
- Q4. You ask whether a Class 3 material with a subsidiary hazard of Division 5.1 may be packaged with other Division 5.1 materials in a “mixed contents” package if these materials do not react dangerously with each other.
- A4. The answer is no. As mentioned in Answer A3, § 177.848(e)(6) waives the segregation requirements between the subsidiary “secondary” hazard and other materials in the same primary hazard class, provided these materials do not react dangerously with each other. However, the inner receptacles with primary hazard Division 5.1 materials are still subject to the separation requirements § 177.848 when transported with primary hazard Class 3 materials.

I hope this information is helpful. Please contact us if we can be of further assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "T. Glenn Foster". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

T. Glenn Foster  
Chief, Regulatory Review and Reinvention Branch  
Standards and Rulemaking Division

**Goodall, Shante CTR (PHMSA)**

Lehman  
177.848  
Highway  
17-0064

**From:** Lehman, Victoria (PHMSA)  
**Sent:** Monday, June 19, 2017 1:55 PM  
**To:** Goodall, Shante CTR (PHMSA)  
**Subject:** FW: Follow up Q/A to 177.848 clarification request

Hi Shante –

As discussed, please log this as a new letter. Mr. Winter's contact information is under letter 17-0049.

Thanks,  
Victoria

**From:** Wade Winters [mailto:wade@regulatoryresources.net]  
**Sent:** Tuesday, June 06, 2017 9:19 PM  
**To:** Lehman, Victoria (PHMSA) <victoria.lehman@dot.gov>  
**Subject:** RE: Follow up Q/A to 177.848 clarification request

Hi,

Thank you for the email. I can only think of two. Can two different hazardous materials of classes/divisions that are not allowed to be transported together, or require separation/segregation (i.e., a Class 3 and Division 5.1), be loaded without regard to separation/segregation if the materials are not capable of reacting dangerously with each other and causing combustion or dangerous evolution of heat, evolution of flammable, poisonous, or asphyxiant gases, or formation of corrosive or unstable materials?

Does the answer for the question above apply equally to mixed contents under 173.24a(c) ... i.e., can these two materials be placed in the same packaging if they are not capable of reacting dangerously with each other (assuming all other requirements of 173.24a(c) are met)?

I really appreciate your time with my request.

I'm out of the office until next Monday but will be able to get to my emails if you have any more questions for me.

Thank you so very much,

Wade

**From:** Lehman, Victoria (PHMSA) [mailto:victoria.lehman@dot.gov]  
**Sent:** Tuesday, June 6, 2017 11:55 AM  
**To:** wade@regulatoryresources.net  
**Subject:** RE: Follow up Q/A to 177.848 clarification request

Hi Wade,

In our phone call, we briefly discussed the highway segregation requirements for packages required to bear a subsidiary label in 49 CFR 177.848(e)(6).

§177.848 Segregation of hazardous materials... (e) Instructions for using the segregation table for hazardous materials are as follows... (6) When the §172.101 table or §172.402 of this subchapter requires a package to bear a subsidiary hazard label, segregation appropriate to the subsidiary hazard must be applied when that segregation is more restrictive than that required by the primary hazard. However, hazardous materials of the same class may be stowed together

without regard to segregation required for any secondary hazard if the materials are not capable of reacting dangerously with each other and causing combustion or dangerous evolution of heat, evolution of flammable, poisonous, or asphyxiant gases, or formation of corrosive or unstable materials.

Did you have a follow-up question on this requirement that you wanted addressed in a formal letter of interpretation?

Respectfully,

**Victoria Lehman**

*Transportation Specialist- Regulatory Review & Reinvention (PHH-12)*  
U.S. Department of Transportation (U.S. DOT)  
Pipeline and Hazardous Materials Safety Administration (PHMSA)  
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**From:** Wade Winters [<mailto:wade@regulatoryresources.net>]  
**Sent:** Thursday, June 01, 2017 12:13 PM  
**To:** Lehman, Victoria (PHMSA) <[victoria.lehman@dot.gov](mailto:victoria.lehman@dot.gov)>  
**Subject:** Follow up Q/A to 177.848 clarification request

Hi Victoria,

I've posed the questions you asked with regard to the letter seeking clarification on 177.848. The replies are in red. A follow-up question to you concludes the Q&A.

Thank you so much for your desire to help. Please call or email if you have any further questions.

All the best always,

Wade

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The questions from DOT concerns how the item is classed.

1. Is there only one UN number assigned to the item, and hence, the package containing the item (or is it shipped under 2 or more UN numbers and proper shipping names)?

*There will only be 1 UN number assigned.*

2. How is the package to be labeled – what is the primary hazard class?

*The label will be based upon the HD assigned by the DOT or IHC authority. In this case, an HD 1.4B would not be uncommon.*

3. Is the package required to display both a primary and subsidiary hazard label(s) or is only one DOT hazard label required?

*This is a shipper responsibility. This package will not containly require anything other than a primary hazard label.*

Victoria, given the reply to question 3, what would be separation/segregation requirement if a package is determined to require display of both a Division 1.4B label and Division 2.2 label?

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Regulatory Resources, Inc.

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