



U.S. Department  
of Transportation

**Pipeline and Hazardous  
Materials Safety  
Administration**

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

**APR 12 2012**

Ms. Susan E. McDonough  
President  
S.E. McDonough & Associates, Inc.  
4921 Southfork Drive Suite 1  
Lakeland, FL 33813

Ref. No. 11-0003

Dear Ms. McDonough:

This responds to your letter requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to the classification of a sample material with an unknown or suspected hazard. In your letter, you state that your consulting firm is willing to provide regulatory guidance (and possibly more) to clients who intend to offer for transportation dust samples to determine if they meet U.S. Environmental Protection Agency (EPA) or the National Fire Protection Association (NFPA) standards for combustible or explosive dust. You ask how the HMR apply to such a material being transported to a laboratory for testing and analysis. I apologize for the delay in responding and any inconvenience it may have caused. Your questions are paraphrased and answered as follows:

- Q1. What HMR requirements are applicable, if any, to our client's dust samples?
- A1. Section 172.101(c)(11), states that except for certain materials (e.g., a flammable solid as defined by the HMR), a shipper may assign a tentative shipping name, hazard class, and identification number to a material based on the shipper's knowledge of the material, the hazard precedence prescribed in § 173.2a, and defining hazard class criteria in Subchapter C. In this context, "tentative" means a temporary selection of a proper shipping name and hazard class used for a material until a more definite proper shipping name and hazard class can be assigned based on test data and analysis. With samples, exact physical and chemical properties of many materials may be unknown because concentrations of the components may vary from one shipment to the next. Therefore, the use of a tentative classification and proper shipping name is authorized. However, should a shipper obtain more specific data on the properties of the material, the hazard class and proper shipping name must be modified, as applicable.
- Q2. Is it appropriate to assume the dust is "combustible" or "explosible" for HMR purposes?

A2. For purposes of the HMR, the term “explosible” is not used or defined. An explosive, as defined in § 173.50(a), means any substance or article, including a device, which is designed to function by explosion (i.e., an extremely rapid release of gas and heat) or which, by chemical reaction within itself, is able to function in a similar manner even if not designed to function by explosion, unless the substance or article is otherwise classed under the provisions of the HMR. Further, as specified in § 173.21(h), packages containing materials (other than those properly classed as an explosive) which will detonate in a fire are forbidden in transportation in commerce.

For purposes of the HMR, a readily combustible solid is one that meets the criteria specified in § 173.124(a)(3) when tested in accordance with the United Nations (UN) Manual of Tests and Criteria. The use of a tentative classification and proper shipping name is authorized for a packaged sample as specified in response A1 above.

Q3. What if we or our clients suspect that a dust sample does not meet any hazard class as defined by the HMR but elect to have it tested anyway for Occupational Safety and Health Administration (OSHA) compliance?

A3. If you can ascertain without testing that a sample does not meet any hazard class as defined by the HMR, the sample is not subject to the HMR. Otherwise, a tentative classification must be issued in accordance with response A1 above.

Q4. Is there an “exempt quantity” that would exempt our clients from labeling the package or providing shipping papers when offered for transportation by highway or rail?

A4. Yes. For example, exceptions from the labeling and shipping paper requirements for limited quantities of Divisions 4.1 and 4.3 materials in Packing Groups II and III when offered for transportation by highway or rail are prescribed in § 173.151.

Q5. Do our clients require training as prescribed in § 172.704 of the HMR?

A5. Yes, if they are performing any regulated function (e.g., signing a shipping paper) subject to the requirements of the HMR.

Q6. If I am trained as required by the HMR, may I guide my clients through the shipping process without them being trained as well?

A6. No. See response A5 above.

Q7. I have tentatively selected “Metal powders, flammable, n.o.s. (Sample)” and “Flammable solid, inorganic, n.o.s. (Sample)” as proper shipping names for my client’s dust samples. Is this correct?

- A7. Under § 173.22 of the HMR, it is the shipper's responsibility to select the most appropriate description for a hazardous material based on its knowledge of the material. This Office does not normally perform that function. However, your selection appears appropriate based on the limited amount of information received with your inquiry.
- Q8. We assigned Packing Group II to a dust sample package. Should we have selected Packing Group III instead?
- A8. Not necessarily. See response A7 above.
- Q9. Some of our clients are aware of the specific constituents that make up their dust samples (e.g., zinc dust, titanium). Should we recommend they use proper shipping names specifically listed in the § 172.101 Hazardous Materials Table (HMT) for their samples or should they use the generic descriptions instead?
- A9. Unless specified otherwise in § 172.101(c)(12), a generic description should only be selected if the specific technical name for the substance or article is not listed in the HMT.

I trust this satisfies your inquiry. Please contact us if we can be of further assistance.

Sincerely,



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

**Drakeford, Carolyn (PHMSA)**

Stevens  
§ 171.1  
§ 172.101

**From:** INFOCNTR (PHMSA)  
**Sent:** Thursday, December 16, 2010 3:18 PM  
**To:** Drakeford, Carolyn (PHMSA)  
**Subject:** FW: Hazmat Information Center Feedback: Other Questions?

Applicability  
11-0003

Hi Carolyn,

Susan E. McDonough requested we forward this e-mail as a request for a formal letter of interpretation. She also requested we inform the person writing the letter that this is a time-sensitive issue.

Thanks,

Victoria Lehman  
202-366-1035

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

**From:** PHMSA-Feedback [mailto:PHMSA-Feedback]  
**Sent:** Wednesday, December 15, 2010 4:27 PM  
**To:** PHMSA HM InfoCenter; PHMSA Webmaster  
**Subject:** Hazmat Information Center Feedback: Other Questions?

To whom it may concern,

We are an Environmental Health and Safety Regulatory Compliance Consulting Firm. We have been providing DOT hazmat training for generators of hazardous and radioactive waste and hazardous material shippers for over 25 years with no problems. We want to offer clients a new service of providing laboratory sample collection kits, where we would supply all equipment and documentation to the client for the client to collect the samples and ship them to a laboratory for testing to determine if the material meets OSHA and NFPA standards of "combustible" and "explosible" dust. Most of the samples of the same material do not meet the OSHA or EPA definition of "flammable" by the closed cup flash-point method, but some do and some may have never been analyzed for flash point. It is unlikely the particle size is known or the true composition of the samples, only that the dust is collected by a dust collection system. Some samples will turn out to be non-combustible and therefore, not explosible. Some of the client samples may be combustible but not explosible and some clients will have samples that are both combustible and explosible. I want to pre-prepare all the appropriate shipping lables and paper work to ensure that what the client is shipping complies with DOT regulations. We plan to supply a combination package along with packing material to secure the sample container in the box. We would also supply shipping documents and lables with the kits. I had planned on limiting the quantity they ship to less than 5 pounds and having them place a Hazard Class 4.1 lable on the outside of the cardboard box. On the shipping papers I planned to use: Metal Powders, Flammable, n.o.s.(Sample) UN3089 PGIII or Flammable solid, inorganic, n.o.s.(sample) UN3178 PG II as the proper shipping name and shipping by ground only.

Questions:

1. Do DOT Regulations apply to my situation?
2. Must I assume the material is combustible or explosible if we don't know?
3. What if we or the client suspect the material is not combustible but want to have the laboratory analysis result on hand in the event of an OSHA inspection?
4. What if they have had fires in their equipment that generate the dust, but no explosions?

5. Is there an "exempt quantity" which would exempt them from having to lable the package or complete dangerous goods shipping documentation?
6. Do we really have to do all this with regards to shipping papers and container labeling for a sample of material we are sending out to determine if it is a combustibile or explosible dust hazard?
7. Do the people packaging the sample for shipment ( We will have already insured the correct packaging and package lable has been provided as well as completed all paperwork except the shippers signature.) to a laboratory for analysis to determine if it is combustibile or explosible need to have DOT HazMat Shipper Training?
8. What about if I have them return the package to me and I ship the package to the laboratory?
9. Can I as a trained HazMat shipper guide them through the process and have them ship the sample to the lab direct?
10. If it turns out they do need to comply with DOT requirements for shipping HazMat, have I selected the correct proper shipping name?
11. With regards to the Flammable Solids n.o.s., Have I chosen the correct packaging group or should we use PGIII instead of PG II?
12. With regards to those clients that know their material contains Aluminum magnesium, Titanium, or Zinc dust along with steel shot dust, need to use the proper shipping names listed for those metals, i.e. UN1396 and so on?

Our clients have an immediate need to ship these samples. Your timely response will be most appreciated.

Thank you for your time and attention!

Sincerely,

Susan E. McDonough, MS  
President,  
S.E.McDonough & Associates, Inc.  
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Lakeland, FL 33813

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