



U.S. Department
of Transportation

Pipeline and Hazardous Materials
Safety Administration

JUN 12 2009

1200 New Jersey Ave., SE
Washington, DC 20590

Mr. Gene Sanders, DGSA
Senior Dangerous Goods Transportation Specialist
Thermo Fisher Scientific, Customer Channels Group
200 Park Lane
Pittsburg, Pennsylvania 15275

Ref. No.: 09-0058

Dear Mr. Sanders:

This responds to your e-mail letter regarding the requirements in § 173.124(a)(1)(i) and (ii) as they apply to “desensitized explosives” under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Specifically, you ask whether small amounts of desensitized explosives used to calibrate explosive detection machines may be reclassified without submission of an approval request to the Associate Administrator for Hazardous Materials Safety.

According to your letter, calibration products contain less than 1% Class 1 materials and, thus, meet the definition for “desensitized explosive” in § 173.124(a)(1)(i) of the HMR. Such desensitized explosives must be specifically authorized by name in the § 172.101 Hazardous Materials Table or assigned a shipping name and hazard class under the terms of a special permit or an approval. You ask whether there is a threshold concentration of explosive material in a product below which it would not be necessary to seek the approval of the Associate Administrator prior to shipment.

The answer is no. All new compositions containing any amount of explosive material, including compositions of diluted (desensitized) explosives, must be approved by the Associate Administrator. Because of the large number of possible variations and combinations of explosives and diluents in desensitized explosives, it is not possible to determine a threshold concentration of explosive material below which approval would not be required.

I hope this information is helpful. If we can be of further assistance, please contact us.

Sincerely,

Charles E. Betts
Chief, Standards Development
Office of Hazardous Materials Standards

Engram
§ 173.124
§ 172.101.
Classification
09-0058

Drakeford, Carolyn <PHMSA>

From: Gorsky, Susan <PHMSA>
Sent: Tuesday, February 24, 2009 7:21 AM
To: Drakeford, Carolyn <PHMSA>
Subject: FW: Guidance requested

Yet another interp request.

Susan

From: Sanders, Gene [mailto:gene.sanders@thermofisher.com]
Sent: Friday, February 20, 2009 2:54 PM
To: Ke, Charles <PHMSA>; Gorsky, Susan <PHMSA>
Cc: Mayfield, John; Richard, Bob <PHMSA>; Watson, Spencer <PHMSA>; Pfund, Duane <PHMSA>
Subject: Guidance requested

Ms. Gorsky and Dr. Ke,

As terrorism has increased in recent years, so have the number of machines of various kinds designed to detect explosives. Whether to prevent terrorist attacks, or to analyze their aftermath, these machines must be very sensitive, capable of detecting very small concentrations of explosives, explosive contaminants, and explosive residues. As the number of these machines has increased, so has the availability of products used to calibrate these machines increased. Very often these calibration products include less than 1% of materials that when pure are in Class 1 (other than compatibility group A), so that they meet the definition of Desensitized Explosive in 49CFR 173.124(a)(1)(i). The difficulty comes in meeting the requirements of 173.124(a)(1)(ii), which essentially requires the shipper to obtain pre-approval from PHMSA. This pre-approval can come in one of three ways; a HazMat Table entry, a Special Permit, or an Approval. Or, as some shippers have learned, there is a fourth way.

If a product is not listed in the HazMat Table, and a request for interpretation is made, and answered, and that response agrees to a specific classification for a desensitized explosive, then the hassle and delay of obtaining a Special Permit or Approval is avoided. It seems that these interpretations are only issued for very low percentages of explosive, but in a variety of different solvents, including both aqueous and non-aqueous. AccuStandard alone lists 80 of this type of product, (<http://www.accustandard.com/SearchResults/?ls=0&CHEMICAL=1&subsubcategory=C0037&category=Organic+Standards>), while a variety of EPA Method 8095 standards are available from other suppliers. Since Thermo Fisher sells (or re-sells) these products, there is the possibility that we'll make dozens and dozens of requests for interpretation in the coming months and years. Unless...

Is there some threshold concentration of explosive (total of all the explosives in a product), below which we do not need to seek PHMSA approval prior to shipment? Or perhaps, since many of these are chromatography standards, a combination of concentration and total volume (perhaps 1% and 1 mL), below which pre-approval is not required?

Regardless of your response to the preceding two questions, we suggest that this topic may also be appropriate for international groups actively considering desensitized explosive rules, especially the GHS and TDG UN Subcommittees.

Thank you for your time and consideration.

Cheers,

2/24/2009

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