



U.S. Department of Transportation
Pipeline and Hazardous Materials
Safety Administration

1200 New Jersey Ave, S.E.
Washington, D.C. 20590

MAY 11 2009

Mr. John G. Mayfield
Manager, Dangerous Goods Transportation
Customer Channels Group
Thermo Fisher Scientific
2000 Park Lane
Pittsburgh, PA 15275

Ref. No. 09-0049

Dear Mr. Mayfield:

This responds to your March 10, 2009 email requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). You state that Thermo Fisher has a number of materials which have chemical structures that demonstrate some characteristics of Division 4.1 (Flammable solid) or Class 1 (Explosive) materials. However, you do not have sufficient technical information on the materials to make an appropriate classification. You propose to dilute these materials in a compatible solvent to a concentration of 1% or less. You ask for confirmation that the diluted material would not meet the definition of a Class 1 or a Division 4.1 material for purposes of the HMR.

Under § 173.22, it is the shipper's responsibility to class and describe a hazardous material. This Office does not normally perform this function. You have not provided the data or information necessary to enable us to confirm that these materials, diluted as described above, would not meet the definition of an explosive or flammable solid material under the HMR.

To facilitate the transportation of your materials, you may wish to request a special permit. Your application should be directed to the Office of Hazardous Materials Special Permits and Approvals and should include specific and detailed information concerning how you propose to package and transport the materials.

The procedures for applying for a special permit are in 49 CFR Part 107, Subpart B. You may also obtain this information at our website at <http://www.phmsa.dot.gov/hazmat/regs/sp-a>.

I hope this information is helpful. If you have further questions, please do not hesitate to contact this Office.

Sincerely,



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



March 10, 2009

Dr Charles Ke
U.S. DOT
PHMSA
1200 New Jersey Ave. SE
Washington, DC. 20590

Eichenlaub
§173.50(a)
Definitions
09-0049

Dear Dr. Ke:

This is a request for an interpretation. It is a high priority issue for Thermo Fisher.

49CFR 173.50(a) clearly states that some materials, even those not intended to be explosive, may meet the definition of a Class 1 material. Similarly, some materials may unexpectedly meet the definition of Self-Reactive in Division 4.1. At least two regulatory references suggest that chemical structure may be an indication as to which materials could be Explosive or Self-Reactive. ICAO 4.2.3.1.2 lists chemical structures which suggest, but don't prove, that a material may be Self-Reactive. And Table A6.1 of Appendix 6 to the UN Manual of Tests and Criteria lists structures suggestive of explosive properties.

Thermo Fisher has a number of materials which have chemical structures that meet one or more of these 'structural clues' to being Self-Reactive or Explosive. We have been unable to obtain definitive data regarding whether they actually are Explosive/Self-Reactive or not. Therefore, because they might be Explosive or Self-Reactive, and because we don't have sufficient data to obtain Competent Authority permission to ship them as Explosive or Self-Reactive, we have ceased selling them. We are of the opinion that the most reasonable option is to begin planning to dispose of them, although if there are options allowing transport for non-disposal purposes we would be open to them.

It is because of the possibility that these materials might be explosive, and because they are being stored in warehouses not approved for storage of explosives, that this is high priority to us.

We propose diluting these materials in a compatible solvent, almost certainly to be water, to a concentration of 1% or less. We are requesting your agreement that after dilution, these materials do not meet the definition of a Class 1 material, and do not meet any of the definitions of a Division 4.1 material, i.e. not Self-Reactive, nor Desensitized Explosive, nor Readily Combustible Solid. If we receive your agreement to this without conditions, we can determine our best option, which may be to send as waste, or may be to sell to a customer (assuming we can find one). However, if you have conditions on your agreement, such as making it subject to waste shipments only, we would find it acceptable to dispose of the diluted materials.

The list of materials involved is on the attached page, along with supporting documentation. If it is more effective to handle each of these materials individually, we are willing to work with you in that manner as well.

Thank you for your time and interest in our issue. We look forward to hearing from you at your earliest convenience. As these materials are presently being stored in our distribution centers, you can appreciate our interest in resolving this issue as quickly as possible.

Sincerely,

John G. Mayfield, DGSA
Manager, Dangerous Goods Transportation
Thermo Fisher Scientific Co.

List of materials:

- Alizarin Yellow GG
- Dithizone
- Mordant Orange 1
- N-Methyl_n'_nitro-N-nitrosoguanidine
- Oil Red O
- Sudan III