



U.S. Department  
of Transportation  
**Research and  
Special Programs  
Administration**

400 Seventh St., S.W.  
Washington, D.C. 20590

DEC 18 2001

Ms. Carole J. McNamara  
Electron Microscopy Sciences  
P.O. Box 251  
Fort Washington, PA 19034

Ref. No. 01-0271

Dear Ms. McNamara:

This responds to your October 16, 2001 letter requesting clarification on the proper shipping name and hazard class of formaldehyde solution with less than 25% formaldehyde under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Specifically, you ask if the proper shipping name should be "Aviation regulated liquid, n.o.s." for formaldehyde solutions with a variety of percentages of less than 25% formaldehyde. Additionally, you ask if there is a concentration at which a formaldehyde solution would not be subject to the HMR.

It is the shipper's responsibility to properly class and describe a hazardous material in accordance with § 173.22. This Office does not normally perform that function. However, it is the opinion of this Office that formaldehyde solutions with less than 10% formaldehyde mixed with non-hazardous materials do not meet the definition of a Class 9 hazardous material and, provided they do not meet any other hazard class, are not subject to the HMR. Formaldehyde solutions with 10% to 25% formaldehyde are regulated as Class 9 hazardous materials when shipped by aircraft due to its noxious odor. The preferred proper shipping name is "Aviation regulated liquid, n.o.s." The entry "Aviation regulated liquid, n.o.s." was added to the § 172.101 Hazardous Material Table in a final rule published March 5, 1999 (Docket HM-215C; 64 FR 10741) for alignment with the ICAO Technical Instructions and the UN Recommendations.

I hope this answers your inquiry.

Sincerely,

Delmer F. Billings  
Chief, Standards Development  
Office of Hazardous Materials Standards



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§173.22  
Classification  
01-0271

16 October 2001

RSPA  
Office of Hazardous Materials Standards (DHM-10)  
U.S. Dept. of Transportation  
400 Seventh Street, S.W.  
Washington, DC 20590-0001

Dear Sir:

My company supplies chemicals, accessories and equipment for laboratory research of the life sciences. One of our chemicals is formaldehyde in many different percentages. The 49CFR lists this chemical as "Formaldehyde solution, *with not less than 25% formaldehyde*". If we ship a formaldehyde solution which is a 25% solution or more, then it is clearly a dangerous good according to the 49CFR. My question is with any percentage under 25%. I have been in many discussions about this chemical and one suggestion is to ship it as a "UN3334, Aviation regulated liquid, n.o.s." (because "it smells"), when it is under 25% solution. I know formaldehyde has an odor, but to switch from one proper shipping name and go to another, when the percentage doesn't fit the proper shipping name in the 49CFR, is too confusing. What about 2%, 4%, 10%, 16% and 20% formaldehyde solutions? Should we be classifying these as anything or nothing?

Would you be kind enough to search your database to find if there are any past questions on this chemical.

Would it be possible to acquire a **formal letter of interpretation** on formaldehyde solutions? If I need to do anything else to receive this formal letter, please let me know.

I look forward to your expert advice.

Sincerely,



Carole J. McNamara