



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

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

APR 10 2003

Dr. Stephen R. Moulton, II
Biological Operations Manager
United States Department of Interior
U.S. Geological Survey
National Water-Quality Assessment Program
Reston, Virginia 20192

Ref. No.: 02-0292

Dear Dr. Moulton:

This responds to your letter regarding whether biological samples from streams, preserved with Formalin, are regulated for transportation under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). We apologize for the delay in responding and hope it has not caused any inconvenience.

Your agency collects biological samples from streams to determine the identification and abundance of algae and invertebrates (e.g., insects, crustaceans, worms, clams) for use in water-quality studies. For each sample, the stream bottom material (consisting of organisms and debris) is preserved with either 3-5% formalin (algae samples) or 10% formalin (invertebrate samples). A single sample container ranges from 60 mL to a maximum of 1L. These samples are shipped to a central laboratory for analysis.

Section 172.101(c)(11) provides, in part, that a shipper may assign a tentative shipping name, hazard class and identification number to a material sent for testing, based on the shipper's tentative determination according to defining criteria in the HMR, hazard precedence prescribed in § 173.2, and the shipper's knowledge of the material. Based on the information you provided, it is this Office's opinion that these samples do not meet the definition of an infectious substance in § 173.134 because there is no reason to know or suspect they contain an infectious substance.

Although you did not provide sufficient information, such as a Material Safety Data Sheet, the acute effects of Formaldehyde solutions has been well documented. Formalin (10% formaldehyde solution), used to preserve the biological samples, meet the definition for a Class 9 material in § 173.140 and is subject to regulation when transported domestically by air. The appropriate shipping description is "Other Regulated Substances, liquid, n.o.s. (formaldehyde), 9, NA3082, III." Generally, solutions of 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.



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172.101,
173.134

As provided by § 173.22 of the HMR, it is the shipper's responsibility to properly class a hazardous material. Manufacturers, generally, have the knowledge to properly class the materials and products they produce, although it may be necessary to enlist an outside laboratory to assist in the classification process as testing may have to be conducted to see how a product compares to the criteria for the various hazard classes.

I hope this satisfies your inquiry. If we can be of further assistance, please contact us.

Sincerely,



Delmer F. Billings

Chief, Standards Division

Office of Hazardous Materials Standards



United States Department of the Interior

U.S. GEOLOGICAL SURVEY
Reston, Virginia 20192

National Water-Quality Assessment Program
MS 413

Engrum
§ 172.101
§ 173.134
Classification
02-0292

October 30, 2002

Edward Mazzullo
Director of the Office of Hazmat Standards
US DOT/RSPA DHM-10
400 7th Street, NW
Washington, DC 20590-0001

Dear Mr. Mazzullo,

My agency collects biological samples from streams to determine the identification and abundance of algae and invertebrates (e.g., insects, crustaceans, worm, clams) for use in water-quality studies. For each sample, the stream bottom material (consisting of the organisms and debris) is preserved with either 3-5% formalin (algae samples) or 10% formalin (invertebrate samples). A single sample container ranges from 60 mL to a maximum of 1 L depending on the amount of sample material. These samples are shipped from across the country to a central laboratory for analysis.

We have been experiencing considerable confusion over the interpretation of shipping regulations for these samples preserved with either 3-5% or 10% formalin. Can you provide us with a letter of interpretation for the proper classification and shipping requirement for these samples?

Thank you. I look forward to your response.

Sincerely,

Stephen R. Moulton II, Ph.D.
Biological Operations Manager

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