



U.S. Department  
of Transportation

**Pipeline and  
Hazardous Materials Safety  
Administration**

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

NOV 21 2005

Mr. Robert N. Steinwurtzel  
Swidler Berlin, LLP  
3000 K Street, NW, Suite 300  
Washington, DC 20007-5116

Reference No. 05-0147

Dear Mr. Steinwurtzel:

This is in response to your letter asking when a lead compound meets the definition of a marine pollutant under § 171.4 of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Specifically, you ask if a lead compound must be soluble to be described as "Lead compounds, soluble, n.o.s." from the "List of Marine Pollutants," Appendix B to § 172.101, and what definition may be used to determine when it is soluble. You state your material does not meet the definition of a Division 6.1 (poisonous material) and, therefore, may not be described under the entry "Lead compounds, soluble, n.o.s., 6.1 (poisonous), UN 2291, PG III" listed in the Hazardous Materials Table (HMT; § 172.101). We have paraphrased your questions and answered them in the order provided.

- Q1. When is a material described as "Lead compounds, soluble, n.o.s.," a marine pollutant as specified in the HMR in Appendix B to § 172.101, List of Marine Pollutants? What tests and results are appropriate for determining if a lead compound is soluble or insoluble?
- A1. The defining criteria for the solubility of a lead compound are in § 172.102(c)(1), Special Provision 138, of the HMR. In accordance with Special Provision 138, a lead compound is soluble when it exhibits a solubility greater than 5 percent after being mixed with a 0.07 M (molar concentration) of hydrochloric acid and stirred for one hour. If the material exhibits a solubility of 5 percent or less after the test is completed, it is considered insoluble. The International Maritime Dangerous Goods Code identifies "Lead compounds, soluble, n.o.s.," in Columns 4 and 6 of the Dangerous Goods List (DGL; Chapter 3.2) as a marine pollutant, and simultaneously assigns to it the definition for the solubility of lead compounds under Chapter 3.3.1, Special Provision 199. When we incorporated this definition in § 172.102, Special Provision 138 of the HMR, our intent was to permit the definition to also be used for the lead compound entry on the List of Marine Pollutants in § 172.101, Appendix B. However, we neglected to include that language. We will clarify this in a future rulemaking.



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172.101 App. A  
173.132

Under the HMR, a soluble lead compound is a marine pollutant when it is in a solution or mixture of one or more marine pollutants listed in Appendix B to § 172.101 and is packaged in a concentration that equals or exceeds ten percent by weight of the solution or mixture. See § 171.8. The requirements specific to marine pollutants do not apply to a non-bulk packaging transported by motor vehicle, rail car or aircraft. See § 171.4(c).

- Q2. Must the marine pollutant table listing “Lead compounds, soluble, n.o.s.” meet the same hazard class criteria as the listing “Lead compounds, soluble, n.o.s., 6.1, UN 2291, PG III” on the HMT? That is, does a lead compound have to be both soluble and a Division 6.1 (poisonous) material to be considered a marine pollutant?
- A2. No. As discussed in answer A1, a soluble lead compound is a marine pollutant when it meets the definition for the solubility of lead compounds prescribed in § 172.102(c)(1), Special Provision 138, and the definition for a marine pollutant prescribed in § 171.8.
- Q3. Is the correct name for a “lead compounds, soluble” material that is not a hazardous substance and does not meet the definition in § 173.132 for a Division 6.1 material “Environmentally hazardous substances, solid, n.o.s., 9 (miscellaneous), UN 3077, PG III, Marine Pollutant (Lead Compounds)”?
- A3. A soluble lead compound that meets the definition of a marine pollutant in § 171.8 and no other hazard class, and that is not a hazardous substance or a hazardous waste, may be described using the proper shipping description “Environmentally hazardous substances, liquid, n.o.s. (lead compounds), 9, UN 3082, PG III, Marine Pollutant,” provided all other applicable HMR requirements for the material are met.
- Q4. Does a domestic shipment of a marine pollutant in a bulk package by motor vehicle, rail car, or aircraft need to be shipped, packaged, marked, labeled, and placarded as a hazardous material?
- A4. A marine pollutant transported in commerce in a bulk package is regulated as a hazardous material under the HMR. For domestic transportation, if the marine pollutant meets the hazard class definition in § 173.140 for a Class 9 material, it must be accompanied by a shipping paper and packaged, marked, and labeled in conformance with the HMR, but is not required to be placarded. See § 172.504(f)(9). If the marine pollutant meets the definition of any other HMR hazard class, it must comply with the applicable requirements in the HMR for

shipping papers, packaging, marking, and labeling, as well placarding for each hazard class it meets.

I hope this information is helpful.

Sincerely,

A handwritten signature in cursive script that reads "Hattie L. Mitchell". The signature is written in black ink and is positioned below the word "Sincerely,".

Hattie L. Mitchell, Chief  
Regulatory Review and Reinvention  
Office of Hazardous Materials Standards

SWIDLER BERLIN LLP

Robert N. Steinwurtzel  
PHONE 202.424.7830  
FAX 202.424.7645  
rnsteinwurtzel@swidlaw.com

Edmonson  
§172.101 App. B  
§173.132  
Marine Pollutants  
05-0147

The Washington Harbour  
3000 K Street, N.W., Suite 300  
Washington, D.C. 20007-5116  
Phone 202.424.7500  
Fax 202.424.7647  
www.swidlaw.com

June 8, 2005

Mr. Edward T. Mazullo  
Director, Office of Hazardous Materials Standards  
U.S. DOT/RSPA (DHM-10)  
400 7th Street, S.W.  
Washington, D.C. 20590-0001

Re: Classification of Lead Compounds as Marine Pollutants

Dear Mr. Mazullo:

I am writing for clarification on the classification of lead compounds that do not meet the criteria for a poisonous material under Division 6.1 and do not meet the definition of a hazardous substance under the Hazardous Materials Regulations (HMR), 49 C.F.R. Parts 171-180. In particular, this letter seeks clarification as to how to determine whether a lead compound constitutes a "marine pollutant," if it does not otherwise qualify as a hazardous material, and the requirements applicable to such marine pollutants under the HMR.

A "marine pollutant" is a material which is listed in the List of Marine Pollutants in Appendix B to 49 C.F.R. § 172.101, and when in a solution or mixture of one or more marine pollutants is packaged in a concentration by weight which equals or exceeds ten percent (one percent for severe pollutants) of the solution for materials listed in Appendix B. 49 C.F.R. § 171.8. A marine pollutant listed in Appendix B that is not listed in the hazardous material table and that does not meet the definition of Class 1 through 8 must be offered for transportation under either "Environmentally hazardous substances, liquid, n.o.s.," or "Environmentally hazardous substances, solid, n.o.s." *Id.* § 172.101, App. B(2). Appendix B lists "Lead compounds, soluble, n.o.s." as a marine pollutant. Appendix B does not define "soluble."

"Lead compounds, soluble, n.o.s.," however, is listed in the Hazardous Materials Table in § 172.101 as Hazard Class 6, Division 6.1 for poisonous materials. Lead compounds that do not meet the criteria for a Division 6.1 material as specified in § 173.132 of the HMR do not fall under this entry and are not regulated as poisonous materials. *See, e.g.*, DOT Standard Interpretation Letter from Hattie L. Mitchell, Chief, Regulatory Review and Reinvention, Office of Hazardous Materials Standards, to Jeffrey T. Miller, Lead Industries Ass'n, Inc.,

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Mar. 17, 2000; DOT Standard Interpretation Letter from Delmer F. Billings, Chief, Regulations Development, Office of Hazardous Materials Standards, to Ursula Judenhofer, Barlocher, Aug. 8, 1997.

Previously, your office has found that the term "soluble" as used in the HMR means "soluble in water." DOT Standard Interpretation Letter from Delmer F. Billings, Chief, Regulations Development, Office of Hazardous Materials Standards, to Ursula Judenhofer, Barlocher, Aug. 8, 1997. In 1999, Special Provision 138 was added to the Hazardous Material Table in § 172.101 for "Lead compounds, soluble, n.o.s.," Division 6.1, hazardous materials. 64 Fed. Reg. 10,742, 10,775 (Mar. 5, 1999). Special Provision 138 provides that "Lead compounds which, when mixed in a ratio of 1:1000 with 0.07M (Molar concentration) hydrochloric acid and stirred for one hour at a temperature of  $23^{\circ}\text{C}\pm 2^{\circ}\text{C}$ , exhibit a solubility of 5% or less are considered insoluble." 49 C.F.R. § 172.102. This provision does not apply in a situation where the lead compound does not meet the definition of Division 6.1. DOT Standard Interpretation Letter from Hattie L. Mitchell, Chief, Regulatory Review and Reinvention, Office of Hazardous Materials Standards, to Jeffrey T. Miller, Lead Industries Ass'n, Inc., Mar. 17, 2000.

The HMR contains sufficient information to allow a company to determine whether a particular lead compound would constitute a hazardous waste or a hazardous substance. For example, to be a hazardous substance, the product must contain a sufficient amount of lead to meet the reportable quantity listed in Table 1 to Appendix A. 49 C.F.R. § 171.8. The reportable quantity for lead is ten pounds, but only applies to those pieces of metal that have a diameter smaller than 100 micrometers. *Id.* § 172.101, App. A., Table 1, n.¢. The HMR is unclear, however, as to when a lead compound constitutes a "marine pollutant." To clarify whether a lead compound that does not meet the criteria for Division 6.1 could still be a "marine pollutant," please provide responses to the following questions.


1. How is the marine pollutant category "Lead compounds, soluble" listed in Appendix B to § 172.101 defined or determined? What is the appropriate test to determine whether a lead compound is "soluble" for purposes of identifying a lead compound as a "marine pollutant"? What test result defines soluble versus insoluble?
2. Must the marine pollutant listing "Lead compounds, soluble" meet the same hazard criteria as the hazardous material listed with the identical name in the § 172.101 Table? That is, does a lead compound have to be both soluble and a Division 6.1 poisonous material to be considered a "marine pollutant"?
3. Would the correct name for a "Lead compound, soluble" material that is not a hazardous substance and does not meet the criteria for Division 6.1 be called "Environmentally Hazardous Substances, solid, n.o.s., 9, UN 3077, PG III, Marine Pollutant (Lead Compounds)"?

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4. Do domestic shipments by motor vehicle, rail car or aircraft of marine pollutants in bulk packaging (not intended for export) need to be shipped, packaged, marked, labeled and placarded as hazardous materials?

I appreciate your prompt attention to this matter. Thank you in advance for your time and assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert N. Steinwurtzel", with a long horizontal flourish extending to the right.

Robert N. Steinwurtzel

cc: Sandra Franco, Swidler Berlin LLP