



U.S. Department  
of Transportation

Pipeline and Hazardous Materials  
Safety Administration

1200 New Jersey Ave., SE  
Washington, DC 20590

OCT 13 2009

Mr. Paul A. Ackermann  
Applied Cleaning Technologies, Inc.  
900 Oak Pointe Lane  
Northville, MI 48167

Ref. No. 09-0204

Dear Mr. Ackermann:

This responds to your August 18, 2009 letter and telephone discussion with a member of my staff requesting clarification of the applicability of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) to the transportation of Class 8 (corrosive) materials. Specifically, you ask whether the cleaning products your company ships may be transported as limited quantities in accordance with § 173.154. In addition, you ask whether the cleaning products also qualify for transport as consumer commodities.

According to your letter, your company currently transports sodium hydroxide solution (30% w/w) and potassium hydroxide solution (30% w/w) in bottles packaged in UN certified cartons. Each bottle has a capacity of 40 fl. oz.; with 12 bottles to a carton. The material safety data sheets (MSDS) for your cleaning products include toxicological data that you believe may require the products to be classed and transported as Division 6.1 material.

With regard to the proper classification of your products, the data presented in the MSDS for the sodium hydroxide solution is inconclusive because the results are from testing methods not authorized for use in classifying a material as Division 6.1 (poisonous) material under the HMR (see § 173.132). Moreover, there is nothing in the transport history for sodium hydroxide solutions (nor for potassium hydroxide solutions) to suggest that these materials should be assigned a Division 6.1 subsidiary hazard. Therefore, it is the opinion of this Office that your sodium hydroxide solution should be classed as a Class 8 (corrosive) material.

As currently packaged, your cleaning products are not eligible for the limited quantity exceptions provided in § 173.154 because the material is packaged in 40 fl. oz. (1.2 L) bottles. The limited quantity exceptions require liquid corrosive materials in Packing Group (PG) II to be packaged in combination packagings with inner packagings not exceeding 1.0 L (0.3 gallon). In addition, in accordance with the conditions of § 173.154, the 12-pack carton must conform to the general packaging provisions of Part 173, Subpart B and may not exceed 30 kg (66 pounds) gross weight.

As defined in § 171.8, a consumer commodity is a material that is packaged and distributed in a form intended or suitable for sale through retail sales agencies for personal or household

use. Based on the information regarding the end use of your cleaning products provided in your letter, your products meet the definition of consumer commodity. Thus, provided all applicable conditions of § 173.154 are met including the quantity limitations for corrosive material in PG II in paragraph (b), they may be renamed "Consumer commodity" and reclassified and transported as ORM-D materials; shipments of ORM-D materials are eligible for additional exceptions provided in § 173.156.

I hope this information is helpful. If you have further questions, please contact this office.  
Sincerely,

A handwritten signature in black ink, appearing to read "Charles E. Betts". The signature is stylized with a large initial "C" and "B".

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



Applied Cleaning Technologies, Inc.

Cleaning Solutions for the Beverage and Food Industries

August 18, 2009

To: Mr. Edward T. Mazzullo  
Director, Office of Hazardous Materials Standards  
Pipeline and Hazardous Materials Safety Administration  
U.S. Department of Transportation

From: Paul A. Ackermann, Vice President  
Applied Cleaning Technologies, Inc., (ACT, Inc.)  
9600 Oak Pointe Lane  
Northville, MI 48167

Der Kinderen  
§ 173.136  
§ 173.154  
§ 173.132  
§ 173.4  
Definition & Exceptions  
for Class 8  
09-0204

Subject: Letter of Clarification Request for Shipping Class 8, Packing Group II (corrosive) chemicals under guidelines of 49 CFR 173.136, 49 CFR 173.154, 49 CFR 173.132, 49 CFR 173.4, OECD Guideline For Testing of Chemicals Adopted 17<sup>th</sup> July 1992 (Attached, are copies of the 49 CFR Parts listed above)

Dear Mr. Mazzullo,

Applied Cleaning Technologies, Inc. is a manufacturer and seller of Class 8, Packing Group II (corrosive) chemicals. The types of chemicals sold and shipped are liquid sodium hydroxide and/or liquid potassium hydroxide compounds with in the bottle strengths of 30 % w/w as sodium hydroxide or potassium hydroxide. The chemicals are used to clean draught beer lines in taverns and restaurants in America. ACT, Inc. sells the draught line cleaning chemicals through distributors and ships directly from our co-packer to the distributor or the distributor's customers. The individual bottle size is 40 fl.ozs. The chemicals are shipped in 12-pack (UN-Certified) cartons with 50 cartons to a pallet. Each pallet weighs 2,250 pounds. ACT, Inc. pays a hazardous material shipping charge for all pallet shipments and individual 12-pack carton shipments.

ACT, Inc. competitors are selling similar liquid products, sodium hydroxide or potassium hydroxide with in the bottle chemical strengths the same as the ACT, Inc. products (30 % w/w). The competitors are packaging their products in 32 fl.oz. bottles. Their chemicals are shipped in 12- pack cartons and their cartons are not UN-Certified cartons. They ship pallet shipments in the 2,000 pound range as well as individual 12-pack cartons without paying a hazardous material shipping charge. Some competitors also ship their chemicals in 15, 20 and 55 gallon HDPE plastic drums without paying a hazardous material shipping charge.

Our competitors claim the reason they can ship their Class 8, Packing Group II (corrosive) chemicals without paying a hazardous material shipping charge is because the products they ship is qualified under 49 CFR 173.154, "Limited Quantity" Exceptions for Class 8 Packing Group II (corrosive materials) simply because they package and ship their products in 32 fl.oz. bottles.

ACT, Inc. interprets 49 CFR 173.154 differently. On page 526 of the 49 CFR regulations it states under 173.154 (b) Limited quantities of corrosive materials (1) For corrosive materials in Packing Group II, inner packagings not over 1.0 L (33.8 fl.ozs) net capacity each for liquids, unless the material has a subsidiary hazard of Division 6.1, Packing Group II in which case the inner packagings may not exceed 100 ml (3.38 ounces) for liquids.

DOT, CFR 173.132 Class 6, Division 6.1- Definitions. states:

- (a) For the purpose of this subchapter, poisonous material (Division 6.1) means a material, other than gas, which is known to be so toxic to humans as to afford a hazard to health during transportation, or which, in the absence of adequate data on human toxicity:
  - (1) Is presumed to be toxic to humans because it falls within any one of the following categories when tested on animals (whenever possible, animal test data that has been reported in the chemical literature should be used):
    - (i) Oral Toxicity
    - (ii) Dermal Toxicity

30 % w/w liquid sodium hydroxide or potassium clearly falls in the above categories listed under Class 6, Division 6.1-Definitions (1), (i) and (ii).

We all know that liquid sodium hydroxide and potassium hydroxide (30 % w/w) and at much lesser strengths are extremely Dermal Toxic and Oral Toxic in animal testing. Government certified lab tests done on rabbits and other animals have shown this. ACT, Inc. shows the animal (rabbit and monkey) test data on its MSDS Sheets. Our competitors do not show toxicological information (animal tests) on their MSDS Sheets. The people who prepared our product MSDS Sheets must have used Government Certified Lab Data to determine the oral and dermal toxicity of our products based on the corrosiveness of liquid sodium and potassium hydroxide from previous animal testing. It is less expensive to use previous animal test data than having a certified lab re-test using government procedures for tests on animals as stated in OECD Guideline For Testing of Chemicals. So, how can our competitors ship their products without paying a hazardous material shipping charge? Their products would not pass the animal tests either. Some competitors are also marking their MSDS Sheets and product shipping cartons with ORM-D Consumer Commodity. How are they able to do this?

Under 49 CFR 173.154 (b) Limited Quantities, it is not clear what a limited quantity is. Is it one 12-pack case of 32 fl.oz. bottles?, two cases ?, one hundred cases ?, 2,000 lbs? etc... on the same truck shipment?

Recently I have twice called the Department of Transportation, Exemptions and Approvals Dept. Both people I talked with at different times said that for our products to take advantage of 173.154 Exceptions for Class 8 (corrosive, materials) our products must first pass the rabbit eye and skin toxicity tests.

Recently I called USDOT/PHMSA and talked with Eileen Edmonson. We had several phone conversations over a number of days. Eileen was very helpful. I explained to her the types of products ACT, Inc. makes and sells as well as those of our competitors. I also asked Eileen the same questions I asked above. Eileen performed a search in the DOT archives to see if ever there was a DOT letter of clarification written regarding shipping liquid sodium or potassium hydroxide in 32 fl.oz. bottles and being able to qualify for exception under 49 CFR 173.154 Exceptions for Class 8 (corrosive, materials). Eileen e-mailed me that she did not find in the DOT archives any requests for letters of clarification regarding the above from any companies or individuals.

Given the above information, Applied Cleaning Technologies, Inc. is requesting the DOT for a letter of clarification regarding shipping its products in 32 fl.oz. bottles packaged in 12-pack cartons to qualify for taking advantage of 173.154 "Limited Quantity" so that ACT, Inc., like our competitors, would not have to pay a hazardous material shipping charge for its products and also if our products would qualify as a "Consumer Commodity" ORM-D.

With Best Regards,



Paul A. Ackermann, Vice President  
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