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

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

JAN 2 9 2010

Mr. Kevin Lapp
Dangerous Goods Safety Advisor
ChemADVISOR, Inc.
811 Camp Home Road, Suite 220
Pittsburgh, PA 15237

Reference No. 09-0267

Dear Mr. Lapp:

This is in response to your November 9, 2009 letter, December 2, 2009 e-mail, and December 4, 2009 telephone call with a member of my staff requesting guidance on how to properly describe a photo processing solution under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Specifically, you ask if the correct UN identification number and proper shipping name for the solution is "UN 1814, Potassium hydroxide, solution" or "UN 3266, Corrosive liquid, basic, inorganic, n.o.s. (Potassium hydroxide solution)."

According to your e-mail, the solution contains 3-5 percent potassium hydroxide, other chemicals that do not meet the definition of a hazardous material, and water. You state that the solution causes skin and metal corrosion consistent with the definition for a corrosive material in § 173.136, and that potassium hydroxide is the only material in the solution causing it to be corrosive.

In accordance with § 173.22, it is the shipper's responsibility to properly classify a hazardous material and assign it a proper shipping name from the Hazardous Materials Table (HMT) in § 172.101. Section 172.101(c)(10) states that when a hazardous material specifically listed by name in the HMT is combined with non-hazardous material, you must use the proper shipping name of that hazardous material provided: (1) the mixture or solution is not specifically named in the HMT; (2) it meets the hazard class of the hazardous material named; and (3) the qualifying word "mixture" or "solution" is added to the description. Therefore, based on the information you provided, it is our opinion that your solution may be properly described as "UN 1814, Potassium hydroxide, solution, 8, PG II or III" if it meets the definition in § 173.136 for a corrosive material, contains no other hazardous material, and meets no other HMR hazard class. The packing group designation must be determined in conformance with the requirements for assigning a Class 8 packing group prescribed in § 173.137. However, please note that to properly class a mixture containing a hazardous material and other chemical components, you must analyze and test the entire mixture to determine its primary hazard class and if it poses any subsidiary hazards. If the material does contain another hazardous material,

and an appropriate technical name is not shown in the HMT, § 172.101(c)(12)(iii) requires the shipper to determine the hazard class using the precedence order specified in § 173.2a, and select an appropriate generic name (e.g., "Corrosive liquid, n.o.s.") in the manner prescribed in § 172.101(c)(12)(ii).

I hope this satisfies your request.

Sincerely,

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

November 9, 2009

U.S. DOT
PHMSA Office of Hazardous Materials Standards
Attn: PHH-10
East Building
1200 New Jersey Avenue, SE
Washington, DC 20590-001

Edmonson
§ 172.101
Proper Shipping Name
09-0267

To whom it may concern;

Would you please confirm my understanding of the correct UN number/shipping name to use in the following scenario. I have a solution that contains a small amount of potassium hydroxide, the solution does cause skin and/or metal corrosion as defined by DOT, and potassium hydroxide is the only component that is causing the overall solution to be corrosive. It is my understanding of the regulations that the most appropriate UN number and proper shipping name would be UN1814, Potassium hydroxide solution (as opposed to a generic N.O.S. shipping name with the potassium hydroxide being the technical name). My reasoning is that since there are no qualifying percentages listed with UN1814 potassium hydroxide solution in 49CFR 172.101 it would not matter what the percentage was as long as the solution met the definition of a class 8 PG II or PG III, and potassium hydroxide was the only component contributing to the class 8 hazard.

Sincerely

Kevin Lapp
Dangerous Goods Safety Advisor
ChemADVISOR, Inc.
811 Camp Horne Rd
Suite 220
Pittsburgh, PA 15237
(585) 659-8387