



U.S. Department  
of Transportation

**Pipeline and Hazardous  
Materials Safety  
Administration**

1200 New Jersey Avenue, SE  
Washington, D.C. 20590

JUL 15 2013

Mr. Robb Boros  
Patterson Companies, Inc.  
1905 Lakewood Drive  
Boone, Iowa 50036

Reference No. 13-0076

Dear Mr. Boros:

This is in response to your April 11, 2013 letter requesting clarification on the classification of a material under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). The material you describe in your letter is a 47.6% solution of glutaraldehyde using a shipping name of "Corrosive liquid, organic, n.o.s." You state that according to the National Institute of Health, glutaraldehyde has an LD<sub>50</sub> value of 134 mg/kg. Further, in your letter you state that using the equation provided in § 173.132(c)(3) resulted in a calculated LD<sub>50</sub> value of 280.69 mg/kg oral rat. You ask if the results of the calculation are correct, would the glutaraldehyde solution meet the definition of a toxic liquid? In addition, you ask whether it is permitted to apply the Packing Group (PG) III toxic label authorized in § 172.405(c) as the subsidiary hazard label in addition to the corrosive diamond label?

In accordance with § 173.22, it is the shipper's responsibility to properly classify a hazardous material. This Office does not generally perform that function. However, based on the test results you provided, the material does meet the LD<sub>50</sub> criteria for acute oral toxicity. Also, based on this information, we agree that the material does meet the definition in § 173.132(a)(1)(i) for a Division 6.1 material. Therefore, if the material has a subsidiary hazard which is classed as Division 6.1, Packing Group III, the subsidiary "POISON" label may be modified to display the text "PG III" instead of "POISON" or "TOXIC" below the mid line of the label as specified in § 172.405(c).

I hope this satisfies your request.

Sincerely,

T. Glenn Foster  
Chief, Regulatory Review and Reinvention Branch  
Standards and Rulemaking Division

Andrews  
§173.132(c)(3)  
§172.405(c)

**Drakeford, Carolyn (PHMSA)**

**From:** INFOCNTR (PHMSA)  
**Sent:** Thursday, April 11, 2013 3:57 PM  
**To:** Drakeford, Carolyn (PHMSA)  
**Subject:** FW: Glutaraldehyde solution 47.6%

Definitions  
13-0076

**Importance:** High

Hi Carolyn,

This caller requested we submit his e-mail as a formal letter of interpretation.

Thanks,  
Victoria

**From:** [robb.boros@pattersoncompanies.com](mailto:robb.boros@pattersoncompanies.com) [<mailto:robb.boros@pattersoncompanies.com>]  
**Sent:** Wednesday, April 10, 2013 6:30 PM  
**To:** INFOCNTR (PHMSA)  
**Subject:** Glutaraldehyde solution 47.6%  
**Importance:** High

A company classifies a 47.6% solution of glutaraldehyde as *Corrosive liquid, acidic, organic, n.o.s.* However, several sources, including the NIH, has identified Glutaraldehyde as having an LD<sub>50</sub> value of 134mg/kg oral rat. Upon calculating the toxicity using the equation in 173.132(c)(3) resulted in a calculated LD<sub>50</sub> value of 280.69 mg/kg oral rat.

Question 1:

Based on the calculation above, am I correct that the glutaraldehyde solution would meet the definition of a toxic liquid since the calculated value is less than 300mg/kg oral rat?

Question 2:

If my understanding above is correct, the full shipping description would be UN2922, Corrosive liquid, toxic, n.o.s. (Glutaraldehyde), 8(6.1), PGII. But since the toxicity is PG III would I be able to apply the packing group III toxic label authorized in 172.405(c) as the subsidiary hazard label in addition to the corrosive diamond label?

Thanks

**Robb Boros**  
Regulatory Compliance Specialist  
Patterson Companies, Inc.  
515.433.1700 (Fax 1701)

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