U.S. Department
of Transportation

**Pipeline and
Hazardous Materials Safety
Administration**

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

DEC 7 2006

Mr. Gene Sanders
Dangerous Goods
Transportation Specialist
Fisher Scientific
International, Inc.
2000 Park Lane
Pittsburgh, PA 15275

Ref. No. 06-0244

Dear Mr. Sanders:

This responds to your letter requesting clarification on the classification of Hollande's Solution under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Specifically, you ask for confirmation that you have properly classified a solution consisting of < 2.38% picric acid, 1.2% methyl alcohol, 1.0-1.5% acetic acid, 3.14% formaldehyde, 2.0-2.5% copper diacetate monohydrate, and > 90% water. Based on PH value (3.48) and the minimal amount of picric acid in Hollande's Solution (< 2.38%) you intend to describe it as "UN3265, Corrosive liquid, acidic, organic, n.o.s. (Formaldehyde, Picric acid), 8, III." In addition, you enclosed with your request copies of two previously issued interpretations that would appear to support your decision.

Although the entry in the § 172.101 Hazardous Materials Table (HMT) for Picric acid (Trinitrophenol, wetted) does not specify a lower limit for the concentration of picric acid in solution, we agree with your conclusion that Hollande's Solution should not be described as a desensitized explosive of Hazard Class 3 or Division 4.1.

060244

172.101

Therefore, we agree with your decision to describe Hollande's Solution as "UN3265, Corrosive liquid, acidic, organic, n.o.s. (Formaldehyde, Picric acid), 8, III."

I trust this satisfies your inquiry. Please contact us if we can be of further assistance.

Sincerely,

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

Stevens
§172.101
Classification/Shipping Name
06-0244

Drakeford, Carolyn <PHMSA>

From: Gorsky, Susan <PHMSA>
Sent: Thursday, October 26, 2006 3:57 PM
To: Drakeford, Carolyn <PHMSA>
Subject: FW: Formal Interpretation requested
Attachments: InterpLetter 2000 low percent picric.pdf; InterpLetter 2004 Bouins.pdf; Hollande's solution MSDS.pdf

For the interp data base. Thanks.

From: Sanders, Gene [mailto:gene.sanders@fishersci.com]
Sent: Thursday, October 26, 2006 3:12 PM
To: Gorsky, Susan <PHMSA>
Cc: Mayfield, John; Ke, Charles <PHMSA>; Ke, Charles <PHMSA>
Subject: Formal Interpretation requested

Ms. Gorsky,

Fisher Scientific is requesting a formal interpretation regarding the transport classification of a product known as Hollande's Solution, MSDS attached.

Hollande's Solution contains Trinitrophenol (Picric Acid), which when pure (dry) is regulated as a Class 1 material for transport. However, the 49CFR 172.101 Hazardous Materials Table also lists 90% Trinitrophenol with 10% water as being adequately desensitized, UN3364. 90% wetted with 10% is a 0.11-fold dilution. In Hollande's Solution there is 2.38% Trinitrophenol and at least 90% water, which is a 37.81-fold dilution. In other words, Hollande's Solution is 340 times more dilute than the minimum allowed.

None of the other ingredients in Hollande's Solution, all at concentrations less than 3.2%, and listed in the MSDS, are expected to sensitize Trinitrophenol, nor to adversely affect the desensitization of Trinitrophenol by water.

So, we believe that this product is more than adequately desensitized.

Some products include components that are explosive when pure (and/or dry), but are diluted to such an extent that it is no longer necessary to inform transportation workers and emergency responders that they are desensitized explosives. Examples of two of these are in previous interpretations that are attached to this e-mail. Two other examples are listed in the Hazardous Materials Table, Nitroglycerin Solution in Alcohol, both UN1204 and UN3064. Although we acknowledge that at 2.38% Trinitrophenol, Hollande's Solution is slightly more concentrated than the products listed in the interpretation letters, we note that UN3064 has up to 5% explosive material, and while Nitroglycerin can be explosive when precipitated from an alcohol solution, Trinitrophenol remains desensitized when precipitated but still wetted.

So, we believe that this product does not present a high enough risk to warrant informing transportation workers that it includes a desensitized explosive.

Although the pH of Hollande's Solution is 3.48, it is not always acidity alone that determines whether a product is corrosive. There are three components of Hollande's Solution that when present in higher concentrations can each be corrosive on their own. Although none of these three components are believed to make Hollande's Solution corrosive by themselves, and we have not specifically tested for the cumulative effect of the three, we do reasonably suspect that together they make the product a Class 8 material at the Packing Group III level.

Based upon the properties of the pure components, and the concentrations at which they are present in Hollande's Solution, we do not believe Hollande's Solution is a 6.1 material, nor do we believe it to be a Class 3 material. It is definitely not a 4.2 nor 4.3 material.

Therefore, we believe that the most appropriate transport classification for Hollande's Solution to be UN3265, Corrosive liquid, acidic, organic, n.o.s. (Formaldehyde, Picric Acid), 8, III

Again, Fisher Scientific is requesting a formal interpretation regarding the acceptability of this as a transport classification for Hollande's Solution. As always, we appreciate your assistance in keeping Fisher Scientific and our affiliated companies safely in compliance. Thank you.

Cheers,

Gene Sanders, DGSA
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