



U.S. Department
of Transportation

Pipeline and Hazardous
Materials Safety
Administration

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

FEB 12 2014

Mr. E. A. Altemos
HMT Associates, LLC
603 King St., Suite 300
Alexandria, VA 22314-3105

Ref. No. 13-0228

Dear Mr. Altemos:

This responds to your November 22, 2013 letter requesting clarification of the applicability of the air transport requirements for friction-type closures under the hazardous materials regulations (HMR; 49 CFR Parts 171-180). Specifically, you seek confirmation that a “snap-type” cap for a marker pen is not considered a friction-type closure as used in § 173.167 of the HMR.

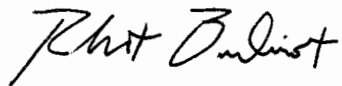
In your letter, you describe a marker pen (i.e., a marker) containing small quantities of free liquid meeting the criteria for a Class 3, packing group II, flammable liquid. The marker is of such a design that the cap is secured to the barrel of the pen by means of “nubs” in the cap that securely engage grooves in the barrel. The cap “snaps” securely into place indicating proper closure. Furthermore, you point out that data show more than twice the force of an external vacuum subjected to the cap under atmospheric pressure is needed to remove the cap; and the minimum removal force in every case exceeds the force of the pressure differential. In addition, vibration tests have demonstrated that the cap remains secure when subjected to vibrations typically encountered during the course of transportation.

It is your understanding that the closure you describe is not considered a friction-type closure for purposes of transporting consumer commodities (ID8000) in accordance with § 173.167 (as well as Packing Instruction Y963 of the International Civil Aviation Organization Technical Instructions for the Safe Transportation of Dangerous Goods by Air) and therefore, is not subject to the requirement for a secondary means of securement applicable to friction-type closures.

Your understanding is correct. A “snap-type cap” such as you describe in your letter would not be considered a friction-type closure for purposes of the § 173.167 requirements for consumer commodities transported by air and thus, is not subject to the requirement for a secondary means of securement under § 173.167(a).

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

Sincerely,

A handwritten signature in cursive script that reads "Robert Benedict". The signature is written in black ink and is positioned above the typed name.

Robert Benedict
Chief, Standards Development Branch
Standards and Rulemaking Division

HMT ASSOCIATES, L.L.C. §173.167

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WRITERS DIRECT DIAL NUMBER

703-549-0727, ext. 11

November 22, 2013

Mr. Charles Betts
Director, Standards and
Rulemaking (PHH-10)
Pipeline and Hazardous Materials
Safety Administration
Department of Transportation
1200 New Jersey Avenue, SE
East Building, 2nd Floor
Washington, D.C. 20590-0001

Dear Mr. Betts,

This is to request confirmation of my understanding of the conclusion drawn at our recent meeting in which we discussed the closure requirements for certain marker pens ("Magic Markers") containing small quantities (i.e., not more than 6 mL, depending on the size of the marker) of free liquid ink meeting the criteria for classification in Class 3, Packing Group II. In particular, we considered whether the "closures" (i.e., the caps) used on these markers are considered "friction type" closures for purposes of air transport under §173.167 of the DOT Hazardous Materials Regulations (49 CFR Parts 171-180, "the HMR") and Packing Instruction Y963 of the ICAO Technical Instructions, and thus would be subject to the requirement that the closure be further secured by "positive means."

In our discussion it was noted that when applied the cap is secured to the barrel of the marker by means of "nubs" in the cap which securely engage grooves in the barrel of the marker. When the cap is applied, it snaps securely into place indicating proper closure, thereby conforming to the requirement that the closure be designed so that it is extremely improbable that it can be incorrectly or incompletely closed and such that it can be easily checked for complete closure. Data from quality assurance reviews were considered that demonstrate that the average force required to remove the cap – both in respect to newly manufactured markers and markers that had been stored for an extended period (i.e., 30 days) at elevated temperature (55°C (130°F)) – is more than twice the

HMT ASSOCIATES, L.L.C.

Mr. Charles Betts
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force developed when the marker is subjected to a complete external vacuum with atmospheric pressure acting under the cap, and the minimum cap removal force recorded in every case significantly exceeds the force developed under that pressure differential. Further it was noted that routine quality assurance vibration tests demonstrate that the cap remains secure when subjected to vibrations representative of those that may be encountered in routine transportation.

Based on the foregoing, it is my understanding that it was agreed that the closures (caps) on these markers need not be viewed as "friction-type" closures for purposes of transport as consumer commodities (ID8000) pursuant to the provisions of §173.167 of the HMR and Packing Instruction Y963 of the ICAO Technical Instructions, and, consequently, are not subject to the requirement that the closure be further secured by positive means. Your confirmation of this understanding will be most appreciated.

Thank you for your consideration of this matter, and please do not hesitate to contact me if you have questions or require additional information in relation to this request.

Sincerely,

A handwritten signature in cursive script, appearing to read "E. A. Altemos", followed by a horizontal line extending to the right.

E. A. Altemos