



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

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

**APR 11 2013**

Mr. Thomas Dolce  
Principal Engineer  
TOM DOLCE Training Associates  
P.O. Box 7624  
Warwick, RI 02887

Ref. No. 13-0054

Dear Mr. Dolce:

This responds to your February 18, 2013 letter requesting clarification of the classification criteria for a Class 3 (flammable liquid) under the International Air Transport Association (IATA) Dangerous Goods Regulations (IATA DGR) as they relate to the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). In your letter, you describe a liquid material with a flash point of 114°F that does not sustain combustion. Additionally for reference, you provide correspondence with a representative of IATA concerning this subject and further clarification of the applicability of the flammable liquid classification criteria under the International Maritime Dangerous Goods (IMDG) Code and the HMR.

It is your understanding that in accordance with the flammable liquid testing requirements under the IATA DGR (*see* 3.3.1.3(a)), the material would not be subject to the provisions of the IATA DGR. However, you are concerned that provisions 3.3.1.4 and 3.3.1.5 cause the material to remain regulated as a Class 3 flammable liquid. Specifically, you are concerned that although offered at a temperature below its flash point, during the course of transportation conditions may be such that the temperature of the material may equal or exceed its flash point, thus, causing the material to be considered a flammable liquid under the IATA DGR.

The HMR authorize and provide conditions for use of international standards and regulations in § 171.22. The IATA DGR are not included among those authorized although the International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO TI) and the IMDG Code are authorized. Thus, we cannot specifically address your concerns regarding the IATA DGR.

However, for purposes of the HMR and in accordance with the flammable liquid definition in § 173.120, a liquid with a flash point greater than 95°F that does not sustain combustion according to test method ASTM D 4206 or the test procedure outlined in Appendix H of Part 173 of the HMR is not defined as a flammable liquid (*see* §173.120(a) and (a)(3)). Such a material is not subject to the requirements of the HMR as a flammable liquid even if

temperature conditions during the course of transportation were to cause the material to equal or exceed its flash point.

For purposes of the ICAO TI and in accordance with 3.1.2, a material meeting the flammable liquid definition, which includes a liquid offered for transport at temperatures at or above its flash point or a substance offered at an elevated temperature, is not considered a flammable liquid under the ICAO TI if the material has passed a suitable combustibility test (*see* 3.1.3(a)).

For purposes of the IMDG Code and in accordance with 2.3.1.2, a material meeting the flammable liquid definition, which includes a liquid offered for transport at temperatures at or above its flash point or a substance offered at an elevated temperature, is not subject to the provisions of the IMDG Code if the material has passed a suitable combustibility test (*see* 2.3.1.3.1).

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 "R. Benedict". The signature is written in a cursive style with a large initial "R".

Robert Benedict  
Chief, Standards Development Branch  
Standards and Rulemaking Division



TOM DOLCE Training Associates

P.O. Box 7624, Warwick, Rhode Island 02887

401 596-3547



February 18, 2013

US Department of Transportation  
Pipeline and Hazardous Materials Safety Administration  
1200 New Jersey Avenue, SE  
Washington, DC 20590

Dear Sir/Madam:

I have a question regarding Class 3 Flammable Liquids that I would appreciate a formal letter of interpretation on from your office. The question involves the air shipment of non-bulk packages under the IATA Dangerous Goods Regulations which are authorized for use by 49 CFR 171 Subpart C. I contacted IATA regarding the question and was informed that a formal letter of interpretation must come from the Competent Authority in the country of origin (USDOT). The question follows:

I have a liquid with a flash point of 114 °F but does not sustain combustion per IATA DGR 3.3.1.3(a), and exhibits no other hazards. I therefore consider it not subject to the DGR. I ship it in non-bulk packages and offer it for transportation at ambient temperature. I am concerned about IATA DGR 3.3.1.4 and 3.3.1.5. Although I am offering the material for transportation at a temperature below its flash point, I am concerned that during transportation (for example, in the back of a truck on route to the airport) the temperature may equal or exceed the material's flashpoint. Would it then become a Class 3 flammable liquid? A written interpretation on this matter would be appreciated.

For your use, I am providing the following response I received from IATA. During a follow-up telephone conversation with IATA after receiving the email, I was advised to request a formal interpretation from USDOT.

Email received from IATA

*From: YMQ Dangerous Goods <dangood@iata.org>*

*Date: January 6, 2013 10:08:16 AM EST*

*To: Tom Dolce <tomdolcetraining@yahoo.com>*

*Subject: RE: Question*

*Tom,*

*Apologies for the delayed response but I'm away from work over the Christmas / New Year holidays.*

*If you meet the conditions set out in 3.3.1.3(a), (b) or (c) then your substances is not regulated in transport as a flammable liquid.*

*I believe that once packaged then the provisions of 3.3.1.4 and 3.3.1.5 will not apply in air transport.*

Der Kinderen  
§ 172.101  
§ 173.120  
Flammable Liquids / IATA  
13-0054

Regards,  
David BRENNAN  
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33, Route de l'Aéroport  
1215 Geneva 15 Airport  
Switzerland  
[www.iata.org/dangerousgoods](http://www.iata.org/dangerousgoods)

### Summary of Question

The liquid I am shipping has a flashpoint of 114 °F but meets the conditions of IATA DGR 3.3.1.3(a) and exhibits no other hazard class. I therefore consider it not subject to the DGR. It is offered in non-bulk packages at ambient temperature (below 100 °F) for shipment by air following a ground portion of the shipment to the airport.

The language in IATA DGR 3.3.1.5 states "*Substances that are transported or offered for transport at elevated temperatures in a liquid state and which give off flammable vapour at a temperature at or below the maximum transport temperature (i.e. the maximum temperature likely to be encountered by the substance in transport) are also considered to be flammable liquids.*"

In the back of the truck on route to the airport or possibly in the airplane, the temperature of the material may rise and equal or exceed its flashpoint. Would it then become a Class 3 flammable liquid and should it have been shipped as such?

### For Shipments by Vessel

Since we may also ship this material by vessel under the IMDG Code, would your answer to the above also apply to water shipments, including the highway portion on route to the port? The applicable IMDG Code reference is 2.3.1.2.2.

### For Domestic Shipments by Ground

We may also ship this material by ground under the DOT's HMR. It appears clear under 49 CFR 173.120(a) that we need not be concerned with this issue since we are not intentionally heating the material and it is not being shipped in bulk packages. Could you please confirm our interpretation.

February 18, 2013

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Please contact me if you require any additional clarification regarding my question and thank you for your anticipated response.

Very truly yours,

**TOM DOLCE** *Training Associates*

*Tom Dolce*

Thomas J. Dolce, P.E., CET  
Principal Engineer

Cell 401 441-1431

## Drakeford, Carolyn (PHMSA)

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**From:** INFOCNTR (PHMSA)  
**Sent:** Friday, February 22, 2013 10:40 AM  
**To:** Drakeford, Carolyn (PHMSA)  
**Subject:** FW: Question  
**Attachments:** USDOT Question.pdf

Hi Carolyn,

We received the following request for a formal letter of interpretation.

Thanks,  
Victoria

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**From:** tom dolce [mailto:tom.dolce@dot.gov]  
**Sent:** Monday, February 18, 2013 2:56 PM  
**To:** INFOCNTR (PHMSA)  
**Subject:** Question

Dear Info Center - Please refer to the attached question regarding Flammable Liquids. Please contact me if you need any additional information.

Thank you,  
Tom Dolce  
401 441-1431