



U.S. Department
of Transportation

Pipeline and Hazardous
Materials Safety
Administration

1200 New Jersey Avenue, SE
Washington, DC 20590

NOV 30 2017

Ken Sumner
President
KWS Training, Inc.
P.O. Box 1381
Hillsborough, NC 27278

Reference No. 17-0098

Dear Mr. Sumner:

This letter is in response to your September 11, 2017, letter requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to the limited quantity exception for aerosols. You describe a scenario in which pressurized metal canisters are filled with purified butane gas and used to refill small handheld tools. The butane is stored in the canister as a liquefied gas but is expelled in liquid form. You ask whether this can be considered an aerosol and be shipped under the exception in § 173.306(a)(3).

The answer is no. In accordance with § 171.8, an aerosol is defined as an article consisting of any non-refillable receptacle containing a gas compressed, liquefied or dissolved under pressure, the sole purpose of which is to expel a nonpoisonous (other than a Division 6.1 Packing Group III material) liquid, paste, or powder and fitted with a self-closing release device allowing the contents to be ejected by the gas. A liquefied compressed gas packaged without a liquid, paste, or powder in the container does not meet the definition of an aerosol and, therefore, is not eligible for the exception.

I hope this information is helpful. Please contact us if we can be of further assistance.

Sincerely,

Dirk Der Kinderen
Chief, Standards Development Branch
Standards and Rulemaking Division

Ciccarone
§173.306(a)(3)
Limited Quantity
17-00918

Dodd, Alice (PHMSA)

From: INFOCNTR (PHMSA)
Sent: Tuesday, September 12, 2017 3:01 PM
To: Hazmat Interps
Subject: FW: Request for Interpretation, 173.306(a)(3)
Attachments: Request for Interpretation.pdf

Hi Alice,

Please submit this as a letter of interpretation. Let me know if you have any questions.

Thanks,
Jodi

From: hazmat@kwstrain.com [mailto:hazmat@kwstrain.com]
Sent: Monday, September 11, 2017 3:40 PM
To: PHMSA HM InfoCenter <PHMSAHMInfoCenter@dot.gov>
Subject: Request for Interpretation, 173.306(a)(3)

See attached letter for details and requested interpretation.
regards,

Ken Sumner
KWS Training, Inc.
(919)929-7234
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Hillsborough NC 27278
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September 11, 2017

U.S. DOT
PHMSA Office of Hazardous Materials Standards
Attn: PHH-10
East Building
1200 New Jersey Avenue, SE.
Washington, DC 20590-0001
phmsa.hm-infocenter@dot.gov

Re: Request for Interpretation, 173.306(a)(3)

I have become aware of a company intending to ship non-refillable liquefied butane fuel canisters as a Limited Quantity by ground transport under 49CFR 173.306(a)(3). The canisters are classified as UN1075, Petroleum gases, liquefied, 2.1. The purified butane gas is in small pressurized metal canisters with no other material inside. The water capacity of the metal canister is over 8 ounces but less than 1 liter. It is used to refill small handheld tools with liquefied fuel.

Their argument appears to be that it meets the definition of aerosol as referenced in 171.8 because the gas is dispensed in liquefied form. Therefore, it expels a liquid. To properly refill tools the canister must be inverted and the gas is expelled in liquefied form. All other requirements of 173.306(a)(3) appear to be met by the individual canisters and shipping cases in question.

I disagree with this choice. It is my belief that a liquefied gas by itself, with no liquid, paste or powder to expel, does not meet the definition of "aerosol" as required by 173.306(a)(3).

Here is a summary of my concerns regarding Limited Quantity as a packaging authorization:

1. 173.306(a)(3) states that "When in a metal aerosol container..." and directs users to the definition of aerosol in 171.8.
2. The definition of aerosol includes "...the sole purpose of which is to expel a nonpoisonous (other than a Division 6.1 Packing Group III material) liquid, paste or powder...".
3. The contents of the canister are classified for shipping purposes as a gas. Even in liquefied form the content meets the definition of a gas (see 171.8 and 173.116(e)). The canister has no liquid, paste or powder to expel.
4. If used correctly (i.e. upside down), the canister expels the liquefied gas into a tool fuel tank as what appears to be a liquid but is classified as a gas. It is expelling itself, which does not appear

to meet the intent of the aerosol definition in 171.8. In addition, if the canister is held upright, it expels a gas, not liquefied gas.

5. Three Letters of Interpretation from the Department of Transportation address very similar shipments. In each case, your department denies that the definition of aerosol is met by LPG gas alone. The requests for a Letter of Interpretation do mention vapor (gas) being expelled versus liquefied gas but that appears to be irrelevant to the answers given.
 - a. Letter 1 - Ref. No. 00-0159, August 5th, 2000 to H. Renfrew
 - b. Letter 2 - Ref. No. 09-0212, October 6th, 2009 to T. Morenz
 - c. Letter 3 - Ref. No. 09-0290, January 8th, 2010 to S. Anderson
6. If the definition of aerosol cannot be met, then 173.306(a)(3) is not an acceptable packaging authorization.

Do you agree that 173.306(a)(3) is not an appropriate packaging authorization for this canister?

Regards,

Ken Sumner

President

KWS Training, Inc.