U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

AUG 06 2019

Mr. Sam Burton
President
GSI Training Services, Inc.
822 St. Hwy T
Branson, MO 65616

Reference No. 19-0052

Dear Mr. Burton:

This letter is in response to your April 17, 2019, email requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to fire extinguishers. Your email references a package containing Department of Transportation (DOT) specification cylinders filled with a compressed gas (greater than 30% carbon dioxide) attached to an apparatus that contains a fire retardant. The compressed gas and fire retardant are not mixed until the fire extinguisher is used for its intended purpose. You note that this is an important distinction from the more common fire extinguishers that are a mixture of the fire retardant and a compressed gas contained in a single cylinder. You ask whether the cylinder as described is eligible to be shipped as a fire extinguisher under § 173.309. You also ask what would be the most appropriate proper shipping name for the cylinders described in your email.

The answer to your first question is no. As stated in your email, one of the conditions that must be met in § 173.309(a)(3) to use the fire extinguisher description is a cylinder may not contain more than 30% carbon dioxide. If the cylinder you describe contains more than 30% carbon dioxide, it cannot be shipped as a fire extinguisher under § 173.309. To answer your second question, because the cylinders you describe do not meet the definition of a fire extinguisher as prescribed in § 173.309, the identification number and proper shipping name "UN1044, Fire extinguishers" is not appropriate. Rather, the identification number and proper shipping name for the article should reflect the type of compressed gas being shipped, for example, "UN1013, Carbon dioxide."

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

Sincerely,

T. Glenn Foster

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

Andrews

19.0052

Dodd, Alice (PHMSA)

From: INFOCNTR (PHMSA)
Sent: Wednesday, April 17, 2019 12:53 PM
To: Hazmat Interps
Subject: FW: Request for Letter of Interpretation

Hello Alice and Ikeya,

Please see the information below for a letter of interpretation request. This is the LOI request discussed earlier today.

Sincerely,

Lynsie Patschke
Transportation Regulatory Specialist
Hazardous Materials Information Center (HMIC)

From: Sam Burton [mailto:p210driver@aol.com]
Sent: Wednesday, April 17, 2019 11:56 AM
To: INFOCNTR (PHMSA) <INFOCNTR.INFOCNTR@dot.gov>
Subject: Request for Letter of Interpretation

I have been asked by Ansul, the manufacturer of the fire extinguishers in question, to ask DOT to revisit this letter of interpretation 13-0236 regarding the most appropriate proper shipping name to describe these devices.

The majority of the fire extinguishers they manufacture are able to meet the conditions of 173.309 and are shipped in that manner. The fire extinguishers in question, we believe, do not meet the conditions that would make them eligible for this exception.

These fire extinguishers have a DOT cylinder attached to a packaging that contains the fire retardant. The compressed gas and fire retardant are not mixed until the fire extinguisher is used for its intended purpose. This is an important distinction from the more common fire extinguishers that are a mixture of the fire retardant and a compressed gas contained in a single cylinder.

One of the conditions that must be met to use the fire extinguisher exception is not being met in our opinion. 173.309(a)(3) states that the fire extinguisher may not contain more than 30% carbon dioxide. When the carbon dioxide is in a separate cylinder and not in a mixture, it is 100% carbon dioxide and exceeds the stated limit. The 30% limit also implies that we are dealing with the more common fire extinguisher which is a mixture of compressed gas and a fire retardant.

The other overriding issue is how one gets to a PSN that describes an "intended application" in lieu of a more appropriate technical name. The only way I'm aware of to get to a PSN that describes the use of a material is 172.101(c)(10)(i)(F). The title of that subparagraph is "Mixtures and solutions". The opening phrase of sub-subparagraph (i) says "A mixture or solution....". The particular fire extinguishers in question do not meet the definition of a mixture or solution. They will have manifolds of pure nitrogen or carbon dioxide attached to a packaging containing the fire

retardant. This does not meet the definition of a mixture and therefore this paragraph cannot be used to ship these devices under UN1044, fire extinguishers.

Please call my office at 417-334-7060 if further information is required. Thanks for your help in this matter.

Sincerely,

Sam Burton

President

GSI Training Services, Inc

GSI Computer Services, Inc.

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