



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

1200 New Jersey Avenue, SE
Washington, DC 20590

October 9, 2024

Jarrod Kuhn, CPSP, JD
Senior Director of Compliance
The Sterno Group
6900 Dallas Parkway, Suite 870
Plano, TX 75024

Reference No. 24-0069

Dear Mr. Kuhn:

This letter is in response to your August 5, 2024, email requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to limited quantities of compressed gases and how it relates to aerosols. You describe a fuel canister—filled with butane (UN2037)—that is used with a portable butane stove, in which the gas is dispersed from the container into the ignition system of the stove. You state that the canister is a non-refillable container (DOT-2P) with a fill volume of 8 fluid ounces, and that it is equipped with a pressure relief system.

We have paraphrased and answered your questions as follows:

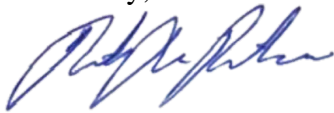
- Q1. You ask whether the container meets the definition of an aerosol in § 171.8.
- A1. The answer is no. In accordance with § 171.8, an aerosol is defined as an article consisting of any non-refillable receptacle containing a gas compressed, liquefied, or dissolved under pressure, the sole purpose 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 to expel does not meet the definition of an aerosol.
- Q2. If the container meets the definition of an aerosol and considering all other information provided, you ask whether the container would meet the requirements to transport as a limited quantity according to § 173.306(a)(3).
- A2. The answer is no. See answer A1.

Q3. You ask whether the packaging you describe meets any other exceptions under § 173.306 to be transported as a limited quantity of compressed gas.

A3. The answer is no. Section 173.306(a)(1) provides general limited quantity exception and is not restricted to only aerosols; however, as packaged according to your description, the fuel canister exceeds the four fluid ounce capacity limitation found in § 173.306(a)(1). All other limited quantity provisions in § 173.306 are restricted to specific materials and articles (e.g., food stuffs, refrigerating machines, accumulators, etc.), none of which are applicable to the container and its contents as you describe.

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

Sincerely,

A handwritten signature in blue ink, appearing to read "Dirk Der Kinderen".

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

From: [INFOCNTR \(PHMSA\)](#)
To: [Dodd, Alice \(PHMSA\)](#)
Cc: [Hazmat Interps](#)
Subject: FW: Request for Interpretation
Date: Tuesday, August 6, 2024 12:33:24 PM
Attachments: [image265204.png](#)
[Request for Interpretation Limited Quantity Shipping.pdf](#)

Hi Alice,

Please see the attached interpretation request.

Let us know if you need anything,

-Breanna

From: Jarrod Kuhn <JKuhn@Sterno.com>
Sent: Monday, August 5, 2024 9:46 PM
To: INFOCNTR (PHMSA) <INFOCNTR.INFOCNTR@dot.gov>
Subject: Request for Interpretation

CAUTION: This email originated from outside of the Department of Transportation (DOT). Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Kelley,

Please see the attached letter requesting interpretation of hazardous materials regulations.

Thank you,
Jarrod Kuhn



Jarrod Kuhn, CPSP, JD
Senior Director of Compliance
Sterno Group
T. 949-431-1130

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REQUEST FOR INTERPRETATION
U.S. DOT's PHMSA, Standards & Rulemaking Division

TO: Mr. Shane Kelley
Director, Standards and Rulemaking Division
U.S. Department of Transportation
Pipeline and Hazardous Materials
Safety Administration
1200 New Jersey Avenue, SE East Building, 2nd Floor
Washington, D.C. 20590

Date: August 5, 2024

Item: Sterno® 8-Fluid Ounce Butane Fuel Canister

RE: ***Request for Interpretation: Limited Quantities of Compressed Gas***
§173.306, §173.306(a)(3), §171.8 (aerosol)

VIA: infocntr@dot.gov

Dear Mr. Kelley,

I am writing to request interpretation of 173.306 for shipping limited quantities of compressed gas, and specifically (a)(3) as it relates to DOT2P containers meeting the definition as an aerosol according to 171.8.

The gas container in question is a fuel canister used with portable butane stoves, as pictured and functionally described below:



Butane Canister



Portable Stove

- Non-refillable small container of Butane gas; UN2037.
- Fill volume is 8-fluid ounces of liquified gas.
- Meets definition of Specification DOT 2P container.
- Pressure Relief Device System according to 173.301(f).
- Temperature-sensing valve with self-closing release capabilities.
- Gas release occurs when the container's valve is connected into the gas regulator and dispersion mechanism within the stove by manually pulling down a lever on the stove, safely locking the canister in place. Once the valve is installed into the stove, turning the knob activates the Piezo ignition system.
- The container is filled with liquified gas and gas is dispersed from the container into the stove's ignition system to work with burners to produce open flame heat that powers the cooking appliance.

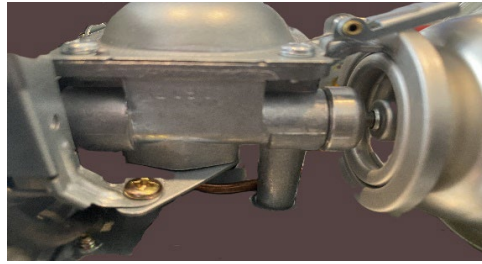
The following is a visual depiction of the container's release device, along with the gas regulation and dispersion system when connected to the portable stove:



Container Valve



Stove Gas Regulator



Container & Stove Connected

Question 1:

Based on described container, how it is filled and functions to expel its contents, does container meet the definition of aerosol, according to §171.8?

Question 2:

Assuming container meets the definition of aerosol, and considering all other container information provided, would container in question meet the conditions to ship as limited quantity, according to §173.306(a)(3)?

Question 3:

If container in question does not meet the definition of aerosol, according to §171.8, and qualify to be shipped as limited quantity pursuant to §173.306(a)(3), does container meet another qualification to ship as limited quantity, based on the information provided, according to §173.306?

If more information is needed or anything clarified further, please do not hesitate to contact me directly at jkuhn@sterno.com.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jarrod Kuhn".

Jarrod Kuhn, J.D., C.P.S.P.
Senior Director of Compliance