



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

1200 New Jersey Avenue, SE
Washington, DC 20590

July 2, 2025

David J. Adams
Director of Design Engineering
Betts Industries, Inc.
1800 Pennsylvania Ave. West
Warren, PA 16365

Reference No. 25-0043

Dear Mr. Adams:

This letter is in response to your April 10, 2025 email requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to a cargo tank motor vehicle (CTMV). Specifically, you ask about the use of an engineered copolymer as the material of construction for certain parts of a CTMV.

We have paraphrased and answered your questions as follows:

- Q1. Does the requirement for the use of nonmetallic materials outlined in § 178.345-9(h) apply to the body of a pressure relief device (PRD), such as a normal vent used on a Department of Transportation (DOT) 406 CTMV?
- A1. No. Section § 178.345-9(h) is applicable for components outboard of the lading retention system and does not apply to PRDs. PRD requirements are generally outlined in § 178.345-10 for DOT 400 series CTMVs, and further specified in §§ 178.346-3, 178.347-4, and 178.348-4 for DOT 406, DOT 407, and DOT 412 CTMVs, respectively.
- Q2. Does the HMR prohibit the use of a high-performance engineered copolymer as the material of construction for the body of a normal vent on a DOT 406 CTMV?

A2. No. The HMR do not specify requirements or restrictions pertaining to materials of construction for PRDs on DOT 406 CTMVs; however, the pressure relief system—including normal vents—must meet the performance requirements in §§ 178.345 and 178.346, as well as the general packaging compatibility requirement in § 173.24 regarding the use of a packaging and its lading.

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', written in a cursive style.

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

From: [INFOCNTR \(PHMSA\)](#)
To: [Dodd, Alice \(PHMSA\)](#)
Cc: [Hazmat Interps: Baker, Yul \(PHMSA\)](#)
Subject: FW: Request for Interpretation 49CFR§178.345-9
Date: Thursday, April 10, 2025 10:48:28

Hi Alice,

Please see the below interpretation request.

Let me know if you need anything,

-Breanna

From: David J. Adams <dadams@bettsind.com>
Sent: Thursday, April 10, 2025 9:23 AM
To: PHMSA Website Manager <PHMSAWebsiteManager@dot.gov>
Cc: INFOCNTR (PHMSA) <INFOCNTR.INFOCNTR@dot.gov>
Subject: Request for Interpretation 49CFR§178.345-9

Some people who received this message don't often get email from dadams@bettsind.com. [Learn why this is important](#)

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To Whom It May Concern,

I would like to request a regulation interpretation or clarification.

Current regulation reads:

49CFR§178.345-9 Pumps, piping, hoses and connections.

(h) Use of a nonmetallic pipe, valve or connection that is not as strong and heat resistant as the cargo tank material is authorized only if such attachment is located outboard of the lading retention system.

Specific requests for interpretation:

1. 49CFR§178.345-9(h) addresses the material restriction for nonmetallic pipe, valve or connection. Does the material restriction mandated by 49CFR§178.345-9(h) also apply to the material used for the body of a pressure relief device such as a normal vent used on a DOT 406 cargo Tank?
2. Are there any other sections of code that restrict the use of high-performance

engineered copolymer as the material of construction for a normal vent body for use on DOT 406 cargo tank?

Thank you for your time and consideration.

Best regards,

David J. Adams

Director of Design Engineering

dadams@bettsind.com

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Betts Industries, Inc.



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