



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

1200 New Jersey Avenue, SE
Washington, DC 20590

December 20, 2024

Stefanie Yarbrough
Senior Manager, Strategic Initiatives
Entegris, Inc.
700 Jeffrey Way, Suite 400
Round Rock, TX 78664

Reference No. 24-0080

Dear Ms. Yarbrough:

This letter is in response to your August 30, 2024, email requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to the usage of overpacks. Specifically, you request clarification regarding overpack marking and labeling as it applies to packages of UN specification steel drums, which are overpacked into rigid cardboard boxes, and then the boxes are palletized using shrink-wrap.


Your questions are paraphrased and answered below.

- Q1. You ask whether the consolidation of overpacks for convenience of handling by shrink-wrapping them to pallets would also be considered an overpack.
- A1. The answer is yes. As defined in § 171.8 an overpack is an enclosure that is used by a single consignor to provide protection or convenience in handling of a package or to consolidate two or more packages (e.g., packages stacked onto a load board such as a pallet and secured by shrink-wrapping). It is the opinion of this Office that further consolidating overpacks in the manner you describe is still considered an overpack based on the HMR definition.
- Q2. You ask whether the shrink-wrapped secondary level of containment—as described in question Q1—must be marked and labeled.
- A2. The answer is yes. The shrink-wrapped pallet as described in your scenario must follow the regulatory requirements for reproducing hazard communication as outlined in § 173.25.

- Q3. You ask whether the marking and labeling on the cardboard box overpacks must be reproduced on the outside of the shrink-wrap if they are clearly visible through the shrink-wrap.
- A3. The answer is no. As provided in § 173.25(a)(2), each overpack must be marked and labeled unless markings and labeling representative of each hazardous material in the packages that are overpacked are visible through the shrink-wrap.
- Q4. If the cardboard box overpacks containing the steel drums were banded to the pallet instead of shrink-wrapped and all required markings and labels were visible, you ask whether the pallet/banding would have to be further marked as an overpack.
- A4. The answer is no as provided for in § 173.25(a)(2). However, because the cardboard box overpack contains UN specification packaging, § 173.25(a)(4) provisions apply.

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", is positioned above the printed name.

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 - Overpack in Overpack
Date: Wednesday, September 4, 2024 4:56:49 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)
[image007.png](#)
[Entegris Request for Interpretation Overpacks in Overpacks 2024-08-30.pdf](#)

Hi Alice,

Please see the below and attached interpretation request.

Let me know if you need anything,

-Breanna

From: Stefanie Yarbrough <stefanie.yarbrough@entegris.com>
Sent: Friday, August 30, 2024 5:30 PM
To: INFOCNTR (PHMSA) <INFOCNTR.INFOCNTR@dot.gov>
Subject: Request for Interpretation - Overpack in Overpack

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 Sir or Madam,

Please see our request for interpretation regarding overpacks.

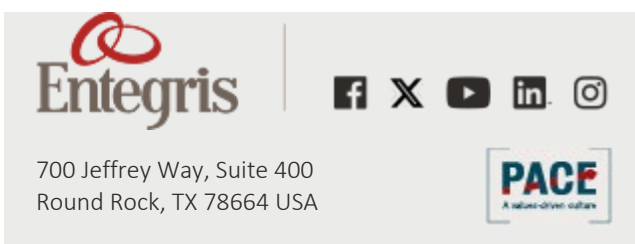
Many thanks in advance for your response.

Best regards

Stefanie Yarbrough

Sr Manager, Strategic Initiatives
Global Supply Chain

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ENTEGRIS PROPRIETARY AND CONFIDENTIAL – INTERNAL

August 30, 2024

Standards and Rulemaking Division
Pipeline and Hazardous Materials Safety Administration, Attn: PHH-10
U.S. Department of Transportation
East Building
1200 New Jersey Avenue, SE
Washington, DC 20590-0001
infocntr@dot.gov

Request for Interpretation

Dear Sir or Madam,

Pursuant to 49 CFR §105.20, this letter is being submitted by e-mail to PHMSA to request an interpretation of the Hazard Materials Regulations regarding overpacks.

Background

Entegris frequently ships via ground, air, and ocean, UN specification packaging steel drums filled with hazardous chemicals, which are overpacked into rigid cardboard boxes containing specifically fitted foam to protect the steel drum during transportation. The steel drum and its overpack are fully marked and labeled in accordance with Subparts D and E of Part 172 of the HMR.

Multiple overpacked drums are then set on a pallet and shrink-wrapped. The required overpack marking and labeling is repeated on the outside of the shrink wrap. After arrival at their destination, the steel drums in their overpack boxes are removed from the pallet and further processed individually.

An overpack is defined in 49 CFR §171.8 as “an enclosure that is used by a single consignor to provide protection or convenience in handling of a package or to consolidate two or more packages.”

The definition of the overpack suggests that it contains “packages”. A package means “a packaging plus its contents”. Packaging means “a receptacle and any other components or materials necessary for the receptacle to perform its containment function”.

In the described scenario, the packaging is the UN specification steel drum, and the package is the UN specification steel drum including its hazardous contents. The cardboard box is the overpack. The final product of the shipment preparation operation is a shrink-wrapped pallet containing multiple overpacks, which contain UN specification steel drums. Since a pallet and shrink wrap are considered an overpack as per 49 CFR §171.8, there are two layers of overpacks in our scenario.

Questions

Based on the above background information, Entegris has the following questions:

1. An overpack contains packages, and therefore, our cardboard box is an overpack and needs to be marked and labeled as such. The pallet and shrink wrap could only be considered an

overpack if an overpack can be a package itself. If an overpack is packed into a secondary layer of containment, would that secondary layer be considered an overpack as well?

2. What is the correct way to mark and label the secondary level of containment, in our case the shrink wrap, if it has to be marked and labeled at all?
3. If the required marking and labeling for the cardboard overpack is clearly visible through the shrink wrap, does it have to be repeated on the outside of the shrink wrap? (It appears that in more than one instance, checkers of these shipments were questioning the existence of two layers of overpacks along with the labeling and marking. Using black shrink wrap was also not successful, as it is regularly removed during the checking process.)
4. If the overpack boxes containing the steel drums were banded to the pallet instead of shrink-wrapped, and all marking and labeling was visible, would the pallet/banding have to be treated and further marked as an overpack?

Entegris greatly appreciates PHMSA's attention to this matter and looks forward to a response that further clarifies our understanding of the hazardous materials regulations.

Should PHMSA require additional details to process this interpretation, please contact me using the information listed below.

Sincerely,



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