



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

February 21, 2024

Dustin Henderson
Trooper
Texas Highway Patrol
1600 West Loop 306
San Angelo, TX 76904

Reference No. 23-0085

Dear Trooper Henderson:

This letter is in response to your September 12, 2023, email requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to intermediate bulk container (IBC) markings and proper shipping names. Specifically, you ask several questions about improper IBC specification markings and the order of “qualifying words” in a proper shipping name.

We have paraphrased and answered your questions as follows:

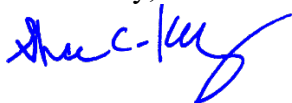
- Q1. You ask whether an IBC is considered a non-specification packaging if part of the package marking required by § 178.703 is missing or does not conform to the requirements of the HMR. Examples provided in your email include a missing “1” or “2” code, indicating whether the IBC is a flexible or rigid package; a missing “X”, “Y”, or “Z” code, indicating the packing group rating; a package marking smaller than the 12 mm minimum size; and an incorrect specification code, specifically that the code indicates the IBC is composite when it is actually steel.
- A1. The answer is no. An IBC manufactured in accordance with the requirements of Part 178 subparts N and O is considered a United Nations (UN) specification IBC if it meets all the applicable manufacturing requirements of Part 178 and continuing qualification requirements in Part 180. In accordance with § 178.2(a)(2), marking of a packaging with the appropriate Department of Transportation (DOT) or UN markings is the certification that: (1) all requirements of the DOT specification or UN standard—including performance tests—are met; and (2) all functions performed by—or on behalf of—the person whose name or symbol appears as part of the marking conform to requirements. An incorrectly marked packaging is a source of confusion and must be corrected upon discovery. A packaging used to transport hazardous material in commerce with an uncorrected error in the package marking is in violation of the HMR; however, it does not necessarily mean the packaging is a “non-specification” packaging. An error in the

specification marking is not equivalent to physically removing the marking or securely covering the marking to disassociate the packaging for the marking that represents it as a DOT or UN specification packaging.

- Q2. You ask whether “mixture,” “solution,” “liquid,” “solid,” “molten,” and “stabilized” are the only qualifying words recognized in the HMR. You note that § 172.101(c)(4) makes the sequence of qualifying words in a proper shipping name optional, although the order presented in the § 172.101 Hazardous Materials Table (HMT) may be the preferred order.
- A2. The answer is no. The HMR neither defines nor limits to a specific list of “qualifying words.” However, it is the opinion of this Office that qualifying words include descriptors that modify the primary chemical name or identifier in the § 172.101 HMT. Therefore, there are other qualifying words besides those noted in § 172.101(c)(16) and (c)(17). Additional examples of qualifying words include, but are not limited to, “compressed,” “dry,” “anhydrous,” “hydrate,” and “wetted.”
- Q3. For the HMT entry “UN3286, Flammable liquid, toxic, corrosive, n.o.s., 3 (6.1, 8), PG II”, you ask whether the words “toxic” and “corrosive” are qualifying words and therefore may be used in either order.
- A3. The answer is no. In this HMT entry, the words “toxic” and “corrosive” are not “qualifying words,”—see for example authorized qualifying words addressed in answer A2 of this letter and in § 172.101(c)(10), (c)(16), and (c)(17)—rather they identify the subsidiary hazards for the material as determined by the relevant classification criteria of the HMR. In the HMT entry described above, the proper shipping name must be written in the order as it appears in the HMT: “Flammable liquid, toxic, corrosive, n.o.s.”

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

Sincerely,



Shane C. Kelley
Director
Standards and Rulemaking Division

Enclosures

From: [INFOCNTR \(PHMSA\)](#)
To: [Dodd, Alice \(PHMSA\)](#)
Subject: FW: Updated - Request for official PHMSA interpretation
Date: Friday, September 15, 2023 9:36:59 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)
[image007.png](#)

Hello Alice,

Please see the below interpretation request. Let us know if you need anything.

Sincerely,
Janaye


From: Henderson, Dustin <Dustin.Henderson@dps.texas.gov>
Sent: Tuesday, September 12, 2023 4:45 PM
To: INFOCNTR (PHMSA) <INFOCNTR.INFOCNTR@dot.gov>
Subject: Updated - Request for official PHMSA 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.

To whom it concerns,

I am seeking an official PHMSA interpretation for the following questions, as there is some confusion among the hazardous materials industry and enforcement community.

1. I understand from Reference 08-0286 - Response 1 that an IBC is a non-specification packaging if it no longer displays any specification markings. Reference 10-0186 relates to destroying, removing, or covering the UN marking and the specification identification on the specification plate. However, I am requesting clarification on how the individual components of the marking required by 178.703(a)(1) affect the packaging's status as a specification packaging. If a packaging code marking, as required per 178.703(a)(1), is missing a required component or has a required component that does not comply with the HMRs, is the packaging considered a non-specification packaging? Several examples needing clarification, addressing the different components, are listed below.
 1. Entirely or partially missing IBC design type (i.e., a package that appears to be a composite IBC with a rigid plastic inner receptacle for liquids displays a packaging code missing the "1" after the "A"):

 31 HA / Y / 02 20 / USA / M9399 / 10800 / 1200


2. Missing the performance standard or displaying a character other than X, Y, or Z. Would the absence of the performance standard, or the displaying of a character other than X, Y, or Z, constitute an unauthorized packaging if the IBC design type and all other components are present, complete, and legible?:

 31HA1 / / 02 20 / USA / M9399 / 10800 / 1200

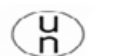
3. Entirely or partially missing the month and year of manufacture:

 31HA1 / Y / 0 20 / USA / M9399 / 10800 / 1200


4. Entirely or partially missing the country authorizing the allocation of the mark:

 31HA1 / Y / 02 20 / U / M9399 / 10800 / 1200


5. Entirely or partially missing the name and address or symbol of the manufacturer or the approval agency certifying compliance:

 31HA1 / Y / 02 20 / USA / M9 / 10800 / 1200

6. Entirely or partially missing the stacking test load:

 31HA1 / Y / 02 20 / USA / M9399 / / 1200

7. Entirely or partially missing the maximum permissible gross mass:

 31HA1 / Y / 02 20 / USA / M9339 / 10800 /

8. Entirely or partially missing any additional markings required in 178.703(b) if it's a metal, rigid plastic, or composite IBC?
9. Entirely or partially missing, or wrong size, additional stacking marking required in 178.703(b)(7) if manufactured, repaired, or remanufactured after January 1, 2011?
10. The packaging code marking is not 12mm in height as required by 178.703(a)(1).
11. Incorrect information. For example, a metal IBC displays the IBC design type for a composite IBC.
12. The United Nations symbol, or the capital letters "UN," is missing.

2. When reviewing 172.101 to determine which words are "qualifying words," those words, when used as part of the proper shipping name, their sequence in the package markings and shipping paper description is optional, the only ones specified are mixture, solution, liquid, solid, molten, and stabilized. Are these the only "qualifying words"? If not, what other words are "qualifying words"?

3. Given the shipping description, 'UN3286, Flammable liquid, toxic, corrosive, n.o.s., 3 (6.1, 8), PG II' are the words toxic and corrosive "qualifying words" whose sequence is optional and can therefore be interchanged to read 'UN3286, Flammable liquid, corrosive, toxic, n.o.s., 3 (8, 6.1), PG II'? Would the shipping description 'UN3286, Flammable liquid, corrosive, toxic,

n.o.s., 3 (8, 6.1), PG II' violate the HMRs?

I appreciate your assistance in this manner. Don't hesitate to contact me if you have any questions regarding this request for interpretation.

Dustin Henderson, Trooper III

Texas Highway Patrol

Commercial Vehicle Enforcement

1600 West Loop 306

San Angelo, TX 76904

(432) 553-4188 (cell)