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The Reusable Industrial Packaging Association (RIPA) is the U.S.-based trade association for businesses involved in the reconditioning, manufacturing, reuse and recycling of industrial containers such as steel drums, plastic drums, and composite IBCs. RIPA’s membership accounts for the vast majority of the U.S. container reconditioning industry, as well as a significant number of packaging manufacturing firms.


Part I: RIPA Opposes Proposed Changes to the Filling Regulations (49 CFR 173.24a)

RIPA is opposing proposed changes to the hazardous materials regulations that govern the filling of non-bulk packagings (e.g., drums). The proposed changes are offered in response to concerns expressed by a single petitioner, ostensibly to clarify existing regulations dealing with the filling of solid materials in liquid-rated packagings. RIPA believes the proposed changes are unnecessary, contradictory, and ultimately counterproductive.
As background, the U.S. hazardous materials regulations allow a higher marked non-bulk single or composite packaging to be filled with a lower rated liquid hazardous material that may have a higher density (specific gravity). For example, an “X” marked packaging (Packing Group I) that is rated for liquids can be used for a Packing Group II or III liquid that has a higher density than authorized by the original mark (though there is a limit to the amount higher). The rules also allow a higher marked, liquid rated packaging (e.g., marked “X”) to be used for a lower rated solid (e.g. “Y” or “Z”; Packing Group II and III, respectively). In this scenario, too, certain upper filling limits (kilograms) apply depending on capacity (liters), the marked rating for specific gravity, and a set multiplier.

In calculating the upper filling limits under the current rules, a non-bulk packaging’s capacity (liters) and its marked specific gravity are used in the equation. In response to the petitioner, DOT has added the words “or gross mass of the package” throughout the relevant provisions wherever a packaging’s marked specific gravity is referenced as part of the equation.

For packagings tested and qualified for liquids, “gross mass” is not marked. (Although in rare cases a packaging such as a drum may be dually UN certified and dually marked for liquids and solids). Also, the provisions in Sec. 173.24a (b)(1) contemplate a liquid-to-liquid conversion, and in (b)(3) a liquid-to-solid conversion. It is not clear how citing gross mass in (b)(1) achieves anything; and in (b)(3) it seems wholly unnecessary.

More importantly, the proposed new language - “or gross mass of the package” - renders the entire provision inexact and confusing. For instance, consider the proposed section 172.24a(b)(3)(i):

(i) A single or composite non-bulk packaging which is tested and marked for Packing Group I liquid hazardous materials may be filled with a solid Packing Group II hazardous material to a gross mass, in kilograms, not exceeding the rated capacity of the packaging in liters, or gross mass of the package, multiplied by 1.5, multiplied by the specific gravity or gross mass of the package marked on the packaging, or 1.2 if not marked (emphasis added).

This appears to allow the shipper to multiply the gross mass by specific gravity. This is seemingly in error, or simply misstated. Is it even certain that gross mass can be multiplied by specific gravity (a dimension-less ratio describing liquids) to get a new upper limit on mass? And would this be a limit that is known to be safe?
Also, how would the conversion to a solids filling limit be assured to stay within the definition of a non-bulk packaging (i.e., 400kg net mass)? For example, even under the existing rules, a Packing Group I 208-liter drum rated at just 1.4 specific gravity could accommodate 437 kg of solids.

\[208 \text{ liters} \times 1.5 \times 1.4 \text{ SG} = 437 \text{kg}\]

This calculated limit is greater than the net mass definition for a non-bulk packaging (§171.8). Additionally, RIPA notes that many Packing Group I drums are rated for specific gravities above 1.4.

Finally, in cases where gross mass is already marked, why make this calculation in the first place?

For these reasons, RIPA recommends that PHMSA not adopt into 173.24a(b) the proposed new language on gross mass. PHMSA has not demonstrated that calculating filling limits using gross mass, as proposed, is proper and scientifically sound.

Additionally, RIPA notes that in the preamble to the NPRM (p. 42612), PHMSA describes how it analyzed Petition for Rulemaking P-1625 and found it to merit rulemaking. PHMSA goes on to say:

“Therefore, PHMSA is proposing to revise §173.24a(b)(3) to allow combination packages tested with liquids to transport solid materials.”

(emphasis added)

However, in the proposed codified language at the end of the NPRM, the word “combination” does not appear alongside the qualifiers “single” and “composite”. Does PHMSA intend for combination packagings to be included, perhaps by an all-inclusive reading of the term “non-bulk”? Or is the preamble statement in error? RIPA believed previously that combination packagings would not be eligible for the filling provisions that allow solids in liquid-rated packagings, and that concerns with safety had led to their exclusion. RIPA would agree that if safety can be shown to be at risk, a decision to exclude combination packagings is the correct one.

Part II: RIPA Opposes Unnecessary Language Regarding IBC Tests and Inspections at 49 CFR 178.703(b)(6)(1)

In response to a Petition for Rulemaking (P-1622) submitted by the Rigid Intermediate Bulk Container Association of North America (RIBCA), PHMSA has
proposed new language that would expressly acknowledge that the marked date of manufacture on a composite IBC’s inner receptacle may be different from the date marked on the completed IBC. PHMSA and RIPA agree that the two events need not occur simultaneously and that different dates do not present a safety concern.

However, in this proposal, PHMSA proposes to go beyond the RIBCA request and has added language that we believe will lead to compliance problems in the future.

RIPA generally supports RIBCA’s petition and some of the proposed changes to the regulations. However, RIPA does not support PHMSA’s addition of the following language which appears at the end of the final sentence:

“….provided that the retest and inspection of the IBCs be based on the earliest marked dated;”

While the date on the inner receptacle will normally be the earlier of the two dates, an inner receptacle cannot be used without first being installed as part of a completed IBC. Inner receptacles are kept in storage until they are installed in an IBC. It follows that inner receptacles are not subject to detrimental effects from the time of their manufacture to the time they are installed in completed IBCs. Only the time the IBC is in use is significant. Consequently, there is no safety benefit in taking the date of manufacture of the inner receptacle into account for purposes of specifying dates for periodic tests and inspections.

Additionally, under §180.352, test and inspection dates already are based on the date of IBC manufacture or remanufacture, as well as IBC repair. The date marked on the inner receptacle is not considered (see §§180.352(b)(1) and (b)(2)). The proposed new language in §178.703(b)(6)(i) appears to introduce an inconsistency in the regulations.

Finally, RIPA believes the proposed language would not be in harmony with UN and international requirements, as those test and inspection requirements also flow from the date of the IBC’s manufacture or repair. RIPA suggests that the language cited above be deleted.

Based upon these comments, RIPA believes the proposed new language should read as follows:

CAPS = New Language    Strikethrough=Deletion

178.703 Marking of IBCs.
For each composite IBC, the inner receptacle must be marked with at least the following information:

(i) The code number designating the IBC design type, the name and address or symbol of the manufacturer, the date of manufacture and the country authorizing the allocation of the mark as specified in paragraph (a) of this section. The date of manufacture of the inner receptacle may be different from the marked date of manufacture required by Sec. 178.703(a)(1)(iv) or THE MARKED DATE OF REPAIR REQUIRED by Sec. 180.352(d)(1)(iv) of this chapter provided that the retest and inspection of the IBCs be based on the earliest marked date; and...

RIPA appreciates the opportunity to comment on the proposed hazmat regulatory amendments in HM-219A. For any additional information, please contact the RIPA office.

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