



U.S. Department
of Transportation
**Research and
Special Programs
Administration**

400 Seventh St., S.W.
Washington, D.C. 20590

JAN 29 2001

Mr. Steven L. Feldman
Goldfarb, Sturman & Averbach
Nineteenth Floor
15760 Ventura Boulevard
Encino, CA 91436-3012

Ref. No: 00-0332

Dear Mr. Feldman:

This responds to your November 30, 2000, letter requesting clarification of orientation arrow marking requirements in the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). You describe a packaging that consists of one-gallon polyethylene containers of liquid hydrochloric acid placed within open-topped polyethylene crates. This packaging configuration is manufactured under a DOT exemption (DOT E-6614).

Your questions have been paraphrased and answered as follows:

Q1. Is the above packaging configuration considered a combination packaging or polyethylene containers inside an overpack?

A1. The packaging configuration you have described meeting the requirements of DOT E-6614 is considered a combination packaging. The inner polyethylene containers are not authorized for shipment as a single packaging; they must be placed in the outer open-topped polyethylene crate to meet the terms of the exemption, and thus be shipped as a combination packaging.

Q2. If each one-gallon polyethylene inner container that has a screw cap is hermetically sealed, must the outer container be marked as required by § 172.312?

A2. The answer is no. As provided by § 172.312(c)(5), a non-bulk packaging with hermetically sealed inner packagings need not be marked with orientation arrows.



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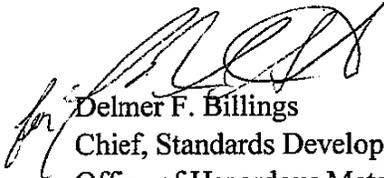
172.312

Q3. Does DOT E-6614 provide for an exception to § 172.312?

A3. The answer is no. DOT E-6614 provides relief from the packaging requirements of §§ 173.202 and 173.203 only.

I hope this information is helpful.

Sincerely,

A handwritten signature in black ink, appearing to read "Delmer F. Billings", is written over the typed name.

Delmer F. Billings
Chief, Standards Development
Office of Hazardous Materials Standards

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\$ 172.312
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November 30, 2000

VIA U.S. EXPRESS MAIL
AIRBILL NO. EL660277101 US

Edward Mazzullo, Director
Office of Hazardous Materials Standards
United States Department of Transportation
Research and Special Programs
Administration DHM-10
400 7th Street, S.W.
Washington, D.C. 20590-0001

Re: Hasa's Request for Hazardous Materials Regulation Interpretation

Dear Mazzullo:

Please be advised that this office represents Hasa, Inc, whose address is 23119 Drayton Street, Santa Clarita, California 91350.

By this letter, on behalf of Hasa, this office is asking for a hazardous materials regulation interpretations as follows:

I REQUESTS:

1. Does the transportation of Hasa's packaging of DOT approved returnable one gallon polyethylene deposit containers of liquid hydrochloric acid placed within open-topped DOT approved polyethylene crates constitute an "overpack," or "combination packaging" as defined by Title 49 Code of Federal Regulations¹ Section 171.8?
2. If you find that Hasa's transportation of liquid hydrochloric acid in one gallon polyethylene containers placed within open-topped polyethylene crates is an

¹ All future references shall be to the appropriate section of the Code of Federal Regulations

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"overpack," is the transportation of that packaging not subject to Section 172.312 as that section applies only to "combination packaging?"

3. If you find that Hasa's transportation of the packaging constitutes "combination packaging," would the transportation of the packaging not be subject to Section 172.312(b), if each one gallon container containing a screw cap is hermetically-sealed as exempted by Section 172.312(c)(5)?
4. Irrespective of the above, does the DOT-E6614 exemption for Hasa also provide an exemption for the provisions of Sections 172.312(a)(2) and 172.312(b)?

II CONTEXT

Earlier this year, a trailer hauling open-topped crates of Hasa's hydrochloric acid was inspected at a local truck scale. An inspector made a determination that the crate containing the one gallon containers of Hasa's hydrochloric acid was in violation of Sections 172.312(a)(2) and 172.312(b) as the crates do not contain markings indicating an upward orientation of the crate on their two opposite vertical sides.

The matter has been referred to the local District Attorney for possible prosecution.

III PACKAGING AND PRODUCT DESCRIPTION

Hasa is a re-packager of hydrochloric acid, UN 1789. The returnable, deposit paid product packaging is sold as an aqueous solution containing 31.4% hydrochloric acid by weight. The product is a corrosive liquid and is shipped in one gallon polyethylene bottles that are placed in DOT approved open topped, solid walled polyethylene crates. The product is shipped in Hasa trucks pursuant to DOT exemption, DOT-E6614. A copy of the current DOT-E6614 exemption is attached as Exhibit 1, for ease of reference.

The polyethylene crate is marked "DOT - E6614" and each DOT approved polyethylene bottle is marked in accordance with the requirements of the DOT-E6614 exemption.

Each polyethylene crate contains four DOT approved polyethylene bottles. As indicated, the crates are open topped. Each bottle fits snugly inside each crate with the tapered end of each bottle

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oriented towards the top of each crate. When shipped, each crate is stacked, one on top of the other, at the appropriate height with each crate interlocking with the one immediately below. A filled bottle would not be placed upside down as that would be an obvious error in proper orientation, nor would any of the crates be stacked in anything but in an upward direction, as the crates would not interlock, unless stacked in the proper upward orientation.

The crates are then placed on wooden pallets. The crates are shrink-wrapped and the load secured in the trailers with chocks or other devices preventing movement during transportation of the trailer.

Hasa also repackages and transports one gallon no-deposit, no-return, containers of polyethylene bottles containing hydrochloric acid. These no-deposit, no-return containers are packaged in rectangular cardboard boxes, either two bottles to a box, or four bottles to a box. Each box is a rectangle and symmetrical from top to bottom.

Unlike the crate, as the top of the box is the same as the bottom, (even though the product labeling on the outside packaging would indicate proper orientation), arrows indicate the proper upward package orientation. Arrows are thus displayed on two opposite vertical sides of each box of the no-deposit, no-return packaging.

Attached hereto, referenced as Exhibits 2, 3 and 4, please find examples of the returnable or deposit paid Hasa hydrochloric acid polyethylene crates and bottles.

Exhibit 2 depicts the interlocking nature of the crates.

Exhibit 3 is a top and side view of the crate and bottles.

Exhibit 4 depicts the interlocking stacked, and shrink wrap crates.

Exhibit 5, depicts the no-deposit, no-return, packaging with arrows showing the proper orientation of each box.

Hasa has in stock approximately 300,000 interlocking polyethylene crates and approximately 2 million deposit, returnable, polyethylene bottles used for hydrochloric acid.

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IV APPLICABLE CFR SECTIONS

Section 172.312 provides in pertinent part:

"(a) Except as provided in this section, each non-bulk combination package having inner packaging containing liquid hazardous materials must be:

(1) Packed with closures upward, and

(2) Legibly marked, with package orientation markings that conform pictorially to the illustration shown in this paragraph, on two opposite vertical sides of the package with the arrows pointing in the correct upright direction. Depicting a rectangular border around the arrows is optional.

(b) Arrows for purposes other than indicating proper package orientation may not be displayed on a package containing a liquid hazardous material.

(c) The requirement of paragraph (a) of this section do not apply to - -

...
(5) A non-bulk package with hermetically-sealed inner packaings."

Section 171.8 defines "overpack" as:

"Overpack, except as provide in subpart K of part 178 of this subchapter, means 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. Overpack does not include a transport vehicle, freight container, or aircraft unit load device. Examples of overpacks are one or more packages:

(1) Placed or stacked onto a load board such as a pallet

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and secured by strapping, shrink wrapping, stretch wrapping, or other suitable means; or

(2) Placed in a protective outer packaging such as a box or crate."

Section 171.8 defines "combination packaging" as:

"Combination packaging means a combination of packaging, for transport purposes, consisting of one or more inner packaging secured in a non-bulk outer packaging. It does not include a composite packaging."

Hasa contends that the polyethylene crate and bottles are packaged as an "overpack," and therefore, no arrows are required on the two opposite vertical sides of the crate.

A careful reading of the definition of "overpack" more accurately describes the Hasa packaging of the deposit, returnable packaging.

Hasa transports its deposit, returnable hydrochloric acid bottles in a returnable, deposit paid "crate." The solid-walled polyethylene crate is a "protective enclosure" and the interlocked crates are stacked on "pallets" and then shrink-wrapped.

Each solid-walled polyethylene Hasa crate constitutes an outer packaging or "enclosure" which is a "protective" outer packaging as the crate is designed to provide secondary containment if a bottle should rupture and its contents leak.

The solid-walls of the crate render the packaging more of an "enclosure," as the term is used in the definition of "overpack," than a form of "combination packaging."

Section 171.8 specifically states that examples of "overpack" packaging include products secured by shrink wrapping or stretch wrapping and placed in a "crate" that provides an enclosure as a protective outer packaging.

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The definition of "**combination packaging**" is much more general in nature as there is no mention of stretch or shrink wrapping, nor does the definition mention crates or pallets. The definition of "**combination packaging**" does not include any reference to an "enclosure" or "protective" outer packaging, as does the definition for "**overpack**." (Section 171.8)

Further, the DOT- E66614 exemption by which this product is shipped, does not specify in section 7(c) that arrows must be used on the "outer crate," but only that each crate must be marked DOT-E6614." Hasa has fully complied with DOT-G6614 marking requirements.

There is little risk that a filled bottle would be placed upside down in the crate as the upward orientation of the tapered bottle is clear. Similarly, there is little risk that the crate would be transported upside down as each crate interlocks on the top of the other, and is then stretch wrapped on top of a pallet.

Nonetheless, if it is determined that the packaging is "**combination packaging**," then the regulations require arrows on two opposite vertical sides of the crate unless the threaded cap of the bottle is hermetically-sealed, so that gas or vapor cannot enter or escape.²

For the reasons herein set forth, Hasa respectfully submits that the correct findings are as follows:

- 1) The returnable one gallon polyethylene containers of Hasa hydrochloric acid, placed inside polyethylene, open topped, solid-walled protective interlocking crates or enclosures, constitute "**overpack**" packaging. This packaging is DOT approved.
- 2.) Therefore, the Hasa packaging of returnable one gallon containers of hydrochloric acid in DOT approved open topped, solid walled crates is not subject to the provisions of Section 172.312.
- 3) Provided, however, if Hasa's packaging is deemed to be "**combination packaging**," it is respectfully requested you should find that such packaging

² Hasa believes that the screw caps used on the hydrochloric acid bottles do hermetically-seal their contents.

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would not be subject to Section 172.312 if the screw cap hermetically-seals the bottle so that no gas can enter or escape.

- 4) Also, alternatively, you should find that the DOT-E6614 exemption exempts the returnable bottles and crates from the provisions of Sections 172.312(a) and 172.312(b).

If further information or documentation is needed, please contact the undersigned at your earliest convenience.

Thank you for your prompt attention to this matter.

Respectfully submitted,

GOLDFARB, STURMAN & AVERBACH

By: _____

Steven L. Feldman

SLF:jae
Enclosure(s)