



DEPARTMENT OF TRANSPORTATION  
HAZARDOUS MATERIALS REGULATIONS BOARD  
WASHINGTON, D.C. 20590

5299

[ 49 CFR Part 173 ]

[Docket No. HM-81; Notice No. 71-8]

TRANSPORTATION OF HAZARDOUS  
MATERIALS  
Sulfuric Acid

The Hazardous Materials Regulations Board is considering amending § 173.272 to delete subparagraphs (c) (2), (3), (5), and (f) (1), and paragraphs (j), (k), and (l). Also, the Board is considering authorizing DOT-33A packaging for any strength sulfuric acid and limiting use of the DOT-17F drum to sulfuric acid not exceeding 98 percent concentration. Certain additional tank cars would be authorized and DOT-12R packaging would be permitted for concentrations of sulfuric acid up to 100.5 percent, with DOT-2E bottles being added as authorized inner packaging. Otherwise, paragraphs (c), (d), (e), (f), (g), (h), and (i) would be changed only editorially.

The Manufacturing Chemists Association has petitioned the Board to delete subparagraphs (c) (2), (3), (5), (f) (1), and the reference to earthenware in (c) (1) in § 173.272, representing the packagings as obsolete; to extend DOT-33A packaging to any strength sulfuric acid which the Board has accumulated satisfactory experience under special permits; to limit DOT-17F drum use to sulfuric acid not exceeding 98 percent, representing the present authorized concentrations as being too broad; to extend DOT-12R packaging to acid concentrations of 100.5 percent, representing this packaging as being equivalent or superior to DOT-15A packaging presently authorized; to delete present paragraphs (j) and (k), representing these requirements as unnecessary and obsolete; and to delete paragraph (l), representing it as unnecessary. The petition also requested a change to provide for the use of DOT-37P packaging for concentrations of sulfuric acid up to 95 percent.

Another petitioner has requested change to this section to provide for use of certain lined tank cars in 51 percent to 65 percent sulfuric acid service, on the basis of several years satisfactory special permit experience.

A petitioner has requested addition of DOT-2E inner packaging for use with the DOT-12R paper-faced expanded polystyrene board box, on the basis of improvement on inside packaging over the glass bottles now authorized.

The Board believes that while the petitions filed have merit, it does not agree that the addition of DOT-37P packaging to the section would be appropriate at this time. Currently, in connection with another project, the Board is reviewing this specification and upon reaching its conclusion will propose any changes it considers needed or for which a petition has been received.

Interested persons are invited to give their views on this proposal. Communications should identify the docket number and be submitted in duplicate to the Secretary, Hazardous Materials Regulations Board, Department of Transportation, 400 Sixth Street SW., Washington, DC 20590. Communications received on or before May 11, 1971, will be considered before final action is taken on the proposal. All comments received will be available for examination by interested persons at the Office of the Secretary, Hazardous Materials Regulations Board, both before and after the closing date for comments.

In consideration of the foregoing, the Board proposes to amend 49 CFR Part 173 as follows:

In § 173.272, paragraphs (c), (d), (e), (f), (g), (h), and (i) would be amended; paragraphs (j), (k), and (l) would be canceled as follows:

§ 173.272 Sulfuric acid.

(c) *Sulfuric acid concentration of 51 percent or less.* Authorized packaging is described in subparagraphs (1) through (16) and (23) through (26) of paragraph (i) of this section.

(d) *Sulfuric acid concentration of greater than 51 percent to not over 65 percent.* Authorized packaging is described in subparagraphs (1) through (16) and (27) of paragraph (i) of this section.

(e) *Sulfuric acid concentration of greater than 65 percent to not over 77.5 percent.* Authorized packaging is described in subparagraphs (1) through (16) and (20) through (22) of paragraph (i) of this section.

(f) *Sulfuric acid concentration of greater than 77.5 percent to not over 95 percent.* Authorized packaging is described in paragraphs (1) (1) through (22) of this section.

(g) *Sulfuric acid concentration of greater than 95 percent to not over 100.5 percent.* Authorized packaging is described in subparagraphs (1) through (4), (17), and (19) through (22) of paragraph (i) of this section.

(h) *Sulfuric acid concentration of over 100.5 percent.* Authorized packaging is described in subparagraphs (1) through (4), (17), and (19) through (22) of this section.

(i) Authorized packagings are described as follows:

(1) Specification 15A, 15B, 15C, 16A, or 19A (§§ 178.168, 178.169, 178.170, 178.185, 178.190 of this chapter). Wooden boxes with glass inside containers, not over 1 gallon capacity each, except that glass inside containers up to 3 gallons capacity may be used if only one such container is packed in each outside wooden box.

(2) Specification 12A (§ 178.210 of this chapter). Fiberboard boxes with in-

side glass bottles not over 5 pints capacity each. Not more than six 5-pint glass bottles may be packed in one outside container. Shipper must have established that the completed package meets test requirements prescribed by § 178.210-10. of this chapter.

(3) Specification 33A (§ 178.150 of this chapter). Polystyrene cases (nonreusable container) with inside glass bottles not over 5 pints capacity each. Not more than four 5-pint bottles may be packed in one outside container.

(4) Specification 1X (§ 178.5 of this chapter). Boxed carboys; single-trip for export only. For shipment by common carriers by water to noncontiguous territories or possessions of the United States and foreign countries; shipments from inland points in the United States which are consigned to such destinations are authorized to be transported to ship side by rail freight in carload lots only and by motor vehicle in truckload lots only.

(5) Specifications 1H, 15P, or 22C (§§ 178.13, 178.182, 178.198). Metal crate with inside polyethylene carboy; or glued plywood or wooden box, or plywood drum as prescribed by § 178.198-2(a) of this chapter with inside specification 2T or 2TL (§ 178.21, 178.27 of this chapter) polyethylene container.

(6) Specification 6D or 37M (non-reusable container) (§§ 178.102, 178.134 of this chapter). Cylindrical steel overpacks with inside spec. 2S, 2SL or 2T (§§ 178.35, 178.35a, 178.21 of this chapter) polyethylene container. Overpack of 55-gallon capacity must be constructed of at least 16-gage steel throughout when used for sulfuric acid of 93 percent or greater concentration.

(7) Specification 16D (§ 178.187 of this chapter). Wirebound wooden overwrap, with inside specification 2T, 2TL, 2S, or 2SL (§§ 178.21, 178.27, 178.35, 178.35a of this chapter), polyethylene container.

(8) Specification 21P (§ 178.225 of this chapter). Fiber drum overpack with inside spec. 2T or 2U (§§ 178.21, 178.24 of this chapter) polyethylene container not over 15-gallon capacity each.

(9) Specification 34 (§ 178.19 of this chapter). Polyethylene container without overpack, not over 30-gallon capacity.

(10) Specification 16A (§ 178.185 of this chapter). Wirebound wooden box (see § 178.185-22 of this chapter) with inside specification 2U (§ 178.24 of this chapter) polyethylene container. The polyethylene container must be separated from the wooden box by a complete corrugated fiberboard liner and top and bottom pads.

(11) Specification 12P (§ 178.211 of this chapter). Fiberboard boxes with inside specification 2U (§ 178.24 of this chapter) polyethylene containers not over 5-gallon capacity each. Wire staples are not authorized for assembly or

closure of boxes, except when polyethylene container is completely enclosed in inside boxes free of wire staples or other projections that could cause failures.

(12) Specification 12B (§ 178.205 of this chapter). Fiberboard boxes with inside polyethylene containers or other containers of plastic compatible with the chemical, not over 1-gallon capacity each. Inside containers must be cushioned to prevent movement in the outside box. Not more than four 1-gallon inside containers may be packed in one outside container. Authorized gross weight not over 75 pounds.

(13) Specification 12R (§ 178.212 of this chapter). Paper-faced expanded polystyrene board boxes with inside specification 2E (§ 178.24a of this chapter) polyethylene bottles not over 1-gallon capacity each. Not more than four 1-gallon polyethylene bottles may be packed in one outside packaging.

(14) Specification 12R (§ 178.212 of this chapter). Paper-faced expanded polystyrene board boxes with inside glass bottles not over 5 pints capacity each. Not more than six 5-pint bottles may be packed in one outside shipping container.

(15) Specification 1A, 1C, or 1K (§§ 178.1, 178.3, 178.14 of this chapter), Carboys in boxes or kegs.

(16) Specification 1D or 1E (§ 178.4, 178.7 of this chapter). Glass carboys in boxes or plywood drums, of not over 6.5 gallons nominal capacity.

(17) Specification 5A (§ 178.81 of this chapter). Metal barrels or drums. Authorized for sulfuric acid of 77.5 percent or greater concentrations, with or without an inhibitor, provided such acid has a corrosive effect on steel no greater than 93.2 percent sulfuric acid, measured at 100° F.

NOTE 1: Tapered steel plugs, without gaskets, for standard specification 6A flanges are authorized. Threaded length must not be less than 1.5 inches. Major diameter of plug must not be over 2 $\frac{1}{2}$  inches, and minor diameter not less than 2 $\frac{1}{2}$  inches.

(18) Specification 17F (§ 178.117 of this chapter). Metal barrels or drums (single-trip only). Drums equipped with vented closures of an experimental type approved by the Bureau of Explosives are also authorized for export shipments. Authorized for sulfuric acid of 77.5 percent to 98 percent concentrations with or without an inhibitor, provided such acid has a corrosive effect on steel no greater than 93.2 percent sulfuric acid, measured at 100° F.

(19) Specification 5C (§ 178.83 of this chapter). Metal barrels or drums of Type 304, 316, or 347 stainless steel or other types of stainless steel of at least equivalent corrosion resistance and physical properties. Authorized for sulfuric acid of 93 percent or greater concentrations.

(20) Specification 60 (§ 178.255 of this chapter). Portable tank. Authorized for sulfuric acid of 65.25 percent or greater concentrations, provided the corrosive effect in steel is not greater than that of

65.25 percent sulfuric acid, measured at 100° F.

(21) Specification MC 310, MC 311, or MC 312 (§ 178.343 of this chapter). Tank motor vehicles. Authorized for sulfuric acid of concentrations 65.25 percent of greater concentrations, provided the corrosive effect in steel is not greater than that of 65.25 percent sulfuric acid, measured at 100° F.

(22) Specification 103A,<sup>1</sup> 103AW, 111A100F2, or 111A100W2 (§§ 179.200, 179.201 of this chapter). Tank cars. Authorized for sulfuric acid of concentrations 65.25 percent or greater concentrations, provided the corrosive effect in steel is not greater than that of 65.25 percent sulfuric acid, measured at 100° F. Tank cars used for sulfuric acid, mixed acid (nitric and sulfuric acids) (nitrating acid), and other fuming acids, may be equipped with safety vents incorporating lead discs having a  $\frac{1}{8}$ -inch breather hole in their center. The  $\frac{1}{8}$ -inch breather hole is not permitted in lead discs of safety vents on oleum tank cars.

(23) Specification 5D (§ 178.84 of this chapter). Rubber-lined metal drums.

(24) Specification 60 (§ 178.255 of this chapter). Rubber-lined portable tanks.

(25) Specification MC 310, MC 311, or MC 312 (§ 178.343 of this chapter). Rubber-lined tank motor vehicles.

(26) Specification 103B,<sup>1</sup> 103BW, or 111A100W5 (§ 179.200, 179.201 of this chapter). Tank cars.

(27) Specification 103AW, 111A100F2, or 111A100W2 (§§ 179.200, 179.201 of this chapter). Tank cars having tanks equipped with a phenolic lining impervious to the lading.

(j) [Canceled]

(k) [Canceled]

(l) [Canceled]

<sup>1</sup> Use of existing tank cars authorized, but new construction not authorized.

This proposal is made under the authority of sections 831-835 of title 18, United States Code, section 9 of the Department of Transportation Act (49 U.S.C. 1657), and title VI and section 902(h) of the Federal Aviation Act of 1958 (49 U.S.C. 1421-1430 and 1472(h)).

Issued in Washington, D.C., on March 12, 1971.

W. F. REA III,  
Rear Admiral, U.S. Coast Guard,  
By direction of Commandant,  
U.S. Coast Guard.

CARL V. LYON,  
Acting Administrator,  
Federal Railroad Administration.

ROBERT A. KAYE,  
Director, Bureau of Motor Carrier Safety, Federal Highway Administration.

SAM SCHNEIDER,  
Board Member, For the  
Federal Aviation Administration.

[FR Doc. 71-3789 Filed 3-18-71; 8:45 am]

NOTE: The second sentence of paragraph (g) should read: "Authorized packaging is described in subparagraphs (1) through (4) and (14) through (22) of paragraph (i) of this section."