



U.S. Department
of Transportation

**Research and
Special Programs
Administration**

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

29973

49 CFR Parts 172, 173 and 178

[Docket HM-139-D; Notice 81-3]

**Conversion of Individual Exemptions
Into Regulation of General
Applicability**

AGENCY: Materials Transportation
Bureau (MTB), Research and Special
Programs Administration, DOT.

ACTION: Notice of proposed rulemaking.

SUMMARY: The Materials Transportation
Bureau is considering amending the
regulations governing the transportation
of hazardous materials to incorporate
therein a number of changes based on
existing exemptions which have been
granted to individual applicants
allowing them to perform particular
functions in a manner that varies from
that specified by the regulations.

Adoption of these exemptions as rules
of general applicability would provide
wider access to the benefits of
transportation innovations recognized
as effective and safe. In addition, these
proposed changes would eliminate the
need for recordkeeping by the
exemption holder(s); eliminate the need
for marking the exemption number on
the package and shipping paper(s), and,
eliminate the need for MTB to receive,
review, docket, evaluate, and issue a
renewal of the exemption every two
years.

DATE: Comments must be received on or
before July 20, 1981.

ADDRESS: Send comments to: Dockets
Branch, Materials Transportation
Bureau, U.S. Department of
Transportation, Washington, D.C. 20590.
Comments should identify the docket
and be submitted in five copies. The
Dockets Branch is located in Room 8428
of the Nassif Building, 400 Seventh
Street, SW., Washington, D.C. Public
dockets may be reviewed between the
hours of 8:30 a.m. and 5:00 p.m. Monday
through Friday.

FOR FURTHER INFORMATION CONTACT:
Darrell I. Raines, Chief, Exemptions and
Regulations Termination Branch, Office
of Hazardous Materials Regulation,
Materials Transportation Bureau, 400
Seventh Street, SW, Washington, D.C.
20590. (202-472-2726).

SUPPLEMENTARY INFORMATION: Each of
the proposed amendments described in
the following table is founded upon
either: (1) Actual shipping experience
gained under an exemption, or (2) the

data and analysis supplied in the
application for an exemption. In each
case the resulting level of safety being
afforded the public is considered at least
equal to the level of safety provided by
the current regulations.

These proposals would not
significantly affect the cost of regulatory
enforcement, nor would additional costs
be imposed on the private sector,
consumer, or Federal, State or local
governments, since these proposals
would merely authorize the general use
of shipping alternatives previously
available to only a few users under
exemptions. The safety record of
shipments under the identified
exemptions demonstrates that
significant environmental impacts would
not result from any of the proposals.
Adoption of an amendment derived
from an existing exemption would
obviate the need for that exemption and
effectively terminate it. Upon such
termination, the holder of the exemption
and parties thereto would be
individually notified. Adoption of an
amendment derived from an application
for exemption should provide the relief
sought, in which event the exemption
request would be denied and the
applicant so notified. In the event the
Bureau decides not to adopt any of these
proposals, each pertinent application
would be evaluated and acted upon in
accordance with the applicable
provisions of the exemption procedures
in 49 CFR Part 107, Subpart B.
Consequently, persons commenting on
the proposals may wish to address both
the proposed amendment and the
exemption application.

Each mode of transportation for which
a particular exemption is authorized or
requested is indicated in the "Nature of
Exemption or Application" portion of
the table below as follows: 1—Motor
vehicle, 2—Rail freight, 3—Cargo vessel,
4—Cargo aircraft only, 5—Passenger-
carrying aircraft.

The MTB has determined that this
proposed regulation will not, if
promulgated, have a significant
economic impact on a substantial
number of small entities.

This proposal will not affect not-for-
profit enterprises, or small governmental
jurisdictions.

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Exemption No.	Applicant holder	Regulation affected	Nature of exemption or application	Proposed amendment
DOT-E 5520	Penwalt Corp., Archem Products.	§ 173.245(a). § 173.256(a). See E-8444 for proposed change to § 173.256.	Authorizes shipments of Compound, cleaning liquid; Compound cleaning liquid (containing hydrofluoric acid); Compound lacquer, paint or varnish removing, liquid; Compound, rust preventing, and Compound, rust removing in a DOT Specification 57 steel portable tank. Tanks constructed of material other than stainless steel must have a polyethylene liner. (Modes 1, 2, 3).	To add paragraph (38) to § 173.245 to read as follows: (38) Specification 57 (§ 173.253 of this subchapter). Metal portable tank. Authorized only for Acetic acid, glacial; Compound, cleaning liquid; Compound, lacquer, paint, or varnish removing, liquid; Compound, rust preventing or Compound, rust removing; and Phosphoric acid not exceeding 85 percent strength. Tanks constructed of a material other than stainless steel must have a polyethylene liner impervious to the solution.
DOT-E 6616	Ferwal Inc.	§§ 173.301(k), 178.51-2, 178.51-10, 178.51-12, 178.51-13, 178.51-19.	To manufacture mark and sell a non-DOT specification spherical, steel pressure vessel manufactured in compliance with DOT Specification 4BA with certain exceptions for the shipment of certain hazardous and non-hazardous materials pressurized with nitrogen not to exceed 360 psig at 70° F. (Modes 1, 2, 3, 4, 5).	To revise paragraph § 173.301(k) by adding 4BA spherical type cylinders and by revising §§ 178.51-2, 178.51-10, 178.51-12, 178.51-13, and 178.51-19 to read: (k) <i>Outside packagings.</i> Specification 2P, 2Q, 3E, 3HT, 4BA spherical type, 4D, 4DA, 4DS, 9 ¹ , 39, 40 ¹ and 41 ¹ must be shipped in strong outside packagings or securely mounted on pallets to provide protection for the cylinders and any attachments to the cylinders. § 178.51-2 <i>Type, size, and service pressure.</i> (a) <i>Type.</i> Cylinders may be spherical or cylindrical in shape. Closures made by the spinning process are not authorized. (1) Spherical type cylinders must be made from two seamless hemispheres joined by the welding of one circumferential seam. (2) Cylindrical type cylinders must be of welded or brazed construction. (b) <i>Size.</i> The capacity of the cylinder must be 1,000 pounds water capacity or less. (c) <i>Service pressure.</i> The service pressure must be at least 2:25 and not over 500 pounds per square inch gauge. § 178.51-10 <i>Wall thickness.</i> (a) * * * (b) Cylinders that are cylindrical in shape must have the wall stress calculated by the formula: $S = \frac{P(1.3D^2 + 0.5d^2)}{D^2 - d^2}$ Where: S = Wall stress in pounds per square inch; P = minimum test pressure prescribed for water jacket test; D = outside diameter in inches; d = inside diameter in inches. (c) Cylinders that are spherical in shape must have the wall stress calculated by the formula: $S = \frac{PD}{4tE}$ where: S = wall stress in pounds per square inch; P = test pressure prescribed for water jacket test, i.e., at least 2 times service pressure, in pounds per square inch; D = outside diameter in inches; t = minimum wall thickness in inches; E = 0.85 (provides 85 percent weld efficiency factor which must be applied in the girth weld area and heat affected zones which zone shall extend a distance of 6 times wall thickness from center line of weld); E = 1.0 (for all other areas). (d) For cylinders with wall thickness less than 0.100 inch, the ratio of tangential length to outside diameter shall not exceed 4.0. § 178.51-12 <i>Openings in cylinders.</i> (a) Any opening must be placed on other than a cylindrical surface. (b) Each opening in a spherical type cylinder must be provided with a fitting, boss, or pad of weldable steel securely attached to the container by fusion welding. (c) Each opening in a cylindrical type cylinder must be provided with a fitting, boss, or pad, securely attached to container by brazing or by welding or by threads. If threads are used, they must comply with the following: (1) Threads must be clean-cut, even, without checks and tapped to gauge. (2) Taper threads to be of length not less than as specified for American Standard taper pipe threads. (3) Straight threads, having at least 4 engaged threads, to have tight fit and calculated shear strength at least 10 times the test pressure of the cylinder; gaskets required, adequate to prevent leakage. § 178.51-13 <i>Pressure relief devices and protection for valves, safety devices, and other connections, if applied.</i> (a) Must be as required by the Department of Transportation's regulations that apply (see §§ 173.34(d), 173.124(a), 173.301(g), and 173.301(k) of this chapter.

Exemption No.	Applicant holder	Regulation affected	Nature of exemption of application	Proposed amendment
(a) * * *				<p>§ 178.51-19 Marking.</p> <p>(b) * * *</p> <p>(c) Location of markings. Markings may be stamped plainly and permanently in the following locations on the cylinder:</p> <p>(1) Cylindrical type cylinder.</p> <p>(i) On shoulders and top heads not less than 0.087 inch thick.</p> <p>(ii) On side wall adjacent to top head for side walls not less than 0.090 inch thick.</p> <p>(iii) On a cylindrical portion of the shell which extends beyond the recessed bottom of the cylinder constituting an integral and nonpressure part of the cylinder.</p> <p>(iv) On a plate attached to the top of the cylinder or permanent part thereof; sufficient space must be left on the plate to provide for stamping at least six rated dates; the plate must be at least 1/4 inch thick and must be attached by welding, or by brazing at a temperature of at least 1100° F., throughout all edges of the plate.</p>
DOT-E 6798	Alleo Chemical Koppers Co.	§ 173.164(a)	Authorizes shipments of Chromic acid, solid in a DOT Specification 56 steel portable tank. Referenced exemption also authorizes the use of a non-specification portable tank "Invert-A-Bin." This proposed change would not eliminate the need for DOT-E 6798 for the non-specification tanks. (Modes 1 and 2).	To add paragraph (7) to § 173.164 to read as follows: (7) Specification 56 (§ 178.252 of this subchapter). Steel portable tank.
DOT-E 6809	H. J. Baker & Bros., Inc.	§ 173.182(b)(6)(ii)	Authorizes shipments of Potassium nitrate in the same type of bag as authorized for ammonium nitrate (no organic coating) and ammonium nitrate fertilizer. (Modes 1 and 3).	To amend the last sentence of paragraph (b)(6)(ii) in § 173.182 to read as follows: (ii) * * * Authorized only for ammonium nitrate (no organic coating), ammonium nitrate fertilizer, and potassium nitrate; or
DOT-E 7423	Dow Chemical, Reade Mfg. Co. Inc., Rossborough Mfg. Co., NL Industries, Inc., Armco, Inc.	§§ 172.101, 173.154, 173.220(b)(2), 176.76(g)(5).	Authorizes shipments of Magnesium powder, magnesium aluminum alloy powder, and magnesium salt coated granules, water reactive, in DOT Specification 58 aluminum portable tanks. For Magnesium, salt coated granules the M'B proposes to add a new Table entry in § 172.101 which would authorize the same packaging as prescribed for Calcium carbide. (Modes 1, 2 and 3).	To amend column (2) of the Table entry in § 172.101 for Magnesium metal (powdered, pellets, turnings, or ribbons) by adding Magnesium-aluminum powder at the end of the present entry. Also, magnesium aluminum powder would be added at the end of the heading in § 173.220 and included in the introductory text of § 173.220(b) and § 173.220(b)(2). Magnesium, granules, coated, would be added to the heading in § 173.178 and to the Table in § 172.101 to read as follows:

Section 172.101 Hazardous Materials Table

(1) UN E/A/W/	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(3A) Identification number	(4) Label(s) required (if not excepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
					(5) Excep- tions	(5) Specific require- ments	(6) Passenger carrying aircraft or railcar	(6) Cargo only aircraft aircraft	(7) Cargo air- craft vessel	(7) Other requirements	
(Add)	Magnesium granules, coated, particle size not less than 740 microns.	Flammable solid.	UN2950	Flammable solid and Dangerous when wet.	None	§ 173.175	25 pounds	100 pounds	1.2	1.2	Segregation same as for flammable solids labeled Dangerous when wet.
	Calcium silicon (powder)	Flammable solid.	UN1406	Flammable solid and Dangerous when wet.	§ 173.153	§ 173.178	Forbidden	25 pounds	1.2	4	Segregation same as for flammable solids labeled Dangerous when wet.



Exemption No.	Applicant holder	Regulation affected	Nature of exemption of application	Proposed amendment
DOT-E 7528	Central Steel	§ 178.118-10(a)	Authorizes the use of a formerly all 18 gauge, 55-gallon capacity, "Steripac" type light head steel drum covered to fully comply with DOT Specification 17H except that the markings prescribed in 49 CFR § 178.118-10(a) may be embossed on the body of the drum, no more than six inches from top curl, use of drum is limited to those classes of materials identified in 49 CFR § 178.28(m). (Modes 1,2,3,4).	To revise the introductory text of paragraph (a) to § 178.118-10 to read as follows: (a) Marking on drums which have been converted to Specification 17H from an all 18-gauge light head drum may be embossed on the body of the drum, no more than six inches from top curl; by marking each drum by embossing on head, except that such embossment must be on the permanent head for drums having removable heads, with raised marks, or by embossing or die stamping on footing on drums equipped with footings, or on metal plates securely attached to drum by brazing or welding not less than 20 percent of the perimeter, as follows: . . .
DOT-E 8105	Active Steel Drum Co			
DOT-E 8253	Allied Drum Service, Inc.			
DOT-E 8260	Bayonne Barrel & Drum Co.			
DOT-E 8340	Columbus Steel Drum Co.			
DOT-E 8341	Pacific Coast Drum Co.			
DOT-E 8342	Great Lakes Container Corp.			
DOT-E 8447	Queen City Barrel Co.			
DOT-E 8449	Tri-State Steel Drum Co.			
DOT-E 8534	Consolidated Container Corp.			
8601-N	Azme Barrel			
8608-N	Feldman Barrel & Drum.			
8615-N	Harbison Brother, Inc.			
8616-N	Hyman Drum & Barrel Corp.			
8617-N	Western N.Y. Barrel & Drum, Co. Inc.			
YT-E 7622	E.I. DuPont	§ 173.365	Authorizes shipments of p-nitrobenzyl bromide (Alpha-Bromo-4-Nitro-toluene) a Poison B, Solid, n.o.s. in DOT Specification 58 portable tanks with non-sifting closures in truckload lots. (Mode 1).	To revise paragraph (a)(11) of § 173.375 to read as follows: (11) Specification 58 (§ 178.252 of this subchapter). Metal portable tank with silt-proof closures. Authorized only for p-nitrobenzyl bromide.
DOT-E 7658	Spectro Industries Inc.	§ 173.505(b)	Authorizes the shipment of Consumer commodities, ORM-D by private and contract motor carriers in a corrugated fiberboard tray covered by a heat shrinkable polyethylene film, HM-139C on July 10, 1980 made a change to §§ 172.101 and 173.505(b) based on an exemption request (8278-N) which also eliminated the need for E-7658 except for shipments by contract carriers. (Mode 1).	To revise § 173.505(b) to read: (b) Strong outside packaging as specified in § 173.1200 of this subchapter are not required for materials classed as OFIM-D when unitized in cases, carts or similar overpacks and when shipped by a private or contract motor carrier from a distribution center to a retail outlet.
DOT-E 7889	Oxy Metal Industries Corp.	§ 173.245	Authorizes shipments of Compound, rust preventing (containing nitric acid, 19% maximum) and phosphoric acid (40% maximum) in DOT Specification 57 portable tanks, fabricated of Type 316 stainless steel. (Mode 1).	See proposed change for E-5520 above.
DOT-E 8087	Union Carbide	§ 173.154	Authorizes shipments of a Water reactive solid, n.o.s. identified as a catalyst M-1 material, classed as a flammable solid and silver oxide classed as an oxidizing material in a DOT Spec. 58 portable tank. (Mode 1).	To revise paragraph (a)(5) of § 173.154 to read as follows: (5) Specification 58 (§ 178.252 of this subchapter). Metal portable tank. Authorized only for silver oxide.
DOT-E 8121	Republic Steel Corp.	§ 173.245(a)	Authorizes shipments of Compound, cleaning liquid (containing 50% maximum phosphoric acid) and a nonhazardous material in DOT Spec. 57 portable tanks having a sump bottom outlet. (Mode 1).	See proposed changes for E 5520 above.
DOT-E 8136	Eastman Kodak Co.	§§ 173.245, 173.277	Authorizes shipments of 15% sodium hypochlorite solution, acetic acid glacial, or phosphoric acid solution in DOT Spec. 57 portable tanks made of 316 stainless steel. (Phosphoric solution not to exceed 85% strength.) (Mode 1).	To revise paragraph (c) of § 173.277 to read as follows: (c) Specification 57 (§ 178.253 of this subchapter). Stainless steel portable tank.
DOT-E 8146	Thiokol Corp.-Rocket Research Co.	§ 173.375	Authorizes shipments of Sodium azide, powder in DOT Specification 58 stainless steel portable tanks and a non-DOT specification collapsible flexible container described as Super Sack. This proposed change pertains only to the Specifications 58 portable tank. No part of the tank or fittings that come in contact with the azide may have copper, lead or mercury other metals known to react with sodium azide. Tanks may be equipped with a bottom clean out plug. Top loading and unloading only. (Modes 1 and 2).	To add paragraph (3) to § 173.375(a) to read as follows: (3) Specification 58 (§ 178.252 of this subchapter). Stainless steel portable tank designed for top loading and unloading only. Tanks may be equipped with a bottom clean out plug. No part of the tank or fittings that come in contact with the sodium azide may contain any metal such as copper, lead, silver or mercury which can form explosive azide compounds. Each transport vehicle must be loaded by the consignor and unloaded by the consignee or by persons trained by the consignor. Not authorized for transportation by water.
DOT-E 8332	Drew Chemical	§ 173.276	Authorizes shipments of Hydrazine, aqueous solution, rust preventing compound and liquid cleaning compounds in steel or stainless steel DOT Specification 57 portable tanks having a maximum capacity of 420 gallons and designed to carry commodities having a specific gravity of 1.65 maximum. Hydrazine must be transported in stainless steel tanks only. (Modes 1,2).	To add paragraph (12) to § 173.276(a) to read as follows: (12) Specification 57 (§ 178.253 of this subchapter). Stainless steel portable tank. Authorized for hydrazine, aqueous solution only.
DOT-E 8338	Dow Chemical Co.	§ 173.357(b)(3)	Authorizes the shipment of Chloropicrin mixture (containing no compressed gas or Poison A liquid) in DOT Specification 17C steel drums of 55-gallon capacity. (Modes 1,2,3)	To amend § 173.357(b)(3) by increasing the capacity of the Specification 17C drum from 30 gallons to 55 gallons.

Exemption No.	Applicant holder	Regulation affected	Nature of exemption of application	Proposed amendment
DOT-E 8347	Fabricated Metals Inc.	§§ 173.119(b), 173.128(a)(3), 173.132(a)(2).	Authorizes shipments of corrosion inhibitor C-158, emulsion, breaker E-9, silicone antifoam liquid SAG 5310, methanol and combustible liquids in DOT Specification 57 steel or stainless portable tanks having a design pressure of not less than 9 psig and a capacity between 260 and 520 gallons. (Mode 3).	To revise paragraph (6) of § 173.119(b) to read as follows: (6) Specification 57 (§ 178.253 of this subchapter). Steel portable tank. Also, authorized for transportation by water when having a minimum design pressure of 9 psig and equipped in accordance with § 178.253-4, but no device may open at less than 5 psig. Authorized for liquids with flash points above 20°F. and a vapor pressure not over 16 psia at 100°F. To revise paragraph (3) of § 173.128(a) to read as follows: (3) Specification 52, ¹ or 57 (§ 178.253 of this subchapter). Metal portable tank. Not authorized for transportation by water except as prescribed in § 173.119(b)(6) of this subchapter. To revise paragraph (2) of § 173.132(a) to read as follows: (2) Specification 52, ¹ or 57 (§ 178.253 of this subchapter). Metal portable tank. Not authorized for transportation by water except as prescribed in § 173.119(b)(6) of this subchapter.
DOT-E 8351	DuBois Chemical Co.	§ 173.245	Authorizes shipments of solutions containing sodium or potassium hydroxide or solutions containing phosphoric acid in DOT Specification 57 stainless steel portable tanks having a capacity of 330 gallons. (Mode 1).	See proposed change for E-5520.
DOT-E 8434	Union Carbide	§§ 173.154, 173.178	Authorizes shipments of calcium silicon powder as a water reactive solid, n.o.s. in packaging prescribed in 49 CFR § 173.178. (Modes 1 and 2).	To add Calcium silicon powder to the Table in § 172.101 and to the heading in § 173.178.
8613-N	Chemical Express Co.	§ 173.131(a)(2)	Requested an exemption to lower the flash point of road asphalt, or tar, liquid, from 73°F. to 50°F. (Mode 1).	To revise paragraph (a)(2) of § 173.131 to read as follows: (2) In cargo tanks that are at least equivalent in design and construction to Specification MC-306 (§§ 178.340, 178.341 of this subchapter) except for the requirements of §§ 178.340-10, 178.341-3, 178.341-4, and 178.341-5.
DOT-E 8384	Oakite Products, Inc.	§ 173.256	Authorizes shipments of Compounds, cleaning, liquid containing not more than 20 percent hydrofluoric acid in DOT Specification 57 steel portable tanks of not more than 330-gallon capacity having a polyethylene liner. Bottom discharge outlets, piping and venting devices are prohibited. (Mode 1).	To revise § 173.256 by adding paragraph (b) to read as follows: (b) Compounds, cleaning, liquid containing not more than 20 percent hydrofluoric acid, by weight, may also be shipped in specification containers as follows: (1) Specification 57 (§ 178.253 of this subchapter). Metal portable tank. Tanks constructed of a material other than stainless steel must have a polyethylene liner in view to the solution.
DOT-E 8444	DuBois Chemical	§ 173.258		

(49 U.S.C. 1803, 1804, 1808; (49 CFR 1.53, App. A to Part 1, and paragraph (a)(4) of Appendix A to Part 108))

Note.—The Materials Transportation Bureau has determined that this proposed regulation is not a major rule under the terms of Executive Order 12291 and does not require a Regulatory Impact Analysis, nor does it require an environmental impact statement under the National Environmental Policy Act (49 U.S.C. 4321 et seq.). A regulatory evaluation and an environmental assessment are available for review in the Docket. I certify that this proposed regulation if published as a final rule, will not have a significant economic impact on a substantial number of small entities:

Issued in Washington, D.C. on May 29, 1981.

Alan I. Roberts,

Associate Director for Office of Hazardous Materials Regulation, Materials Transportation Bureau.

(FR Doc. 81-10671 Filed 6-3-81; 8:45 am)

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