

§ 173.309

49 CFR Ch. I (10–1–02 Edition)

(1) No more than 70 mL (2.3 fluid ounces) of liquefied gas may be loaded into each device;

(2) The liquid portion of the gas may not exceed 85 percent of the volumetric capacity of each fluid chamber at 15 °C (59 °F);

(3) Each device, including closures, must be capable of withstanding without leakage or rupture an internal pressure of at least two times the vapor pressure of the fuel at 55 °C (131 °F); and

(4) Devices must be overpacked in packaging that is designed or arranged to prevent movement of the device itself.

(b) When no more than 1,500 devices covered by this section are transported in one motor vehicle by highway, the requirements of subparts C through H of part 172 of this subchapter, and part 177 of this subchapter do not apply. However, no person may offer for transportation or transport the devices or prepare the devices for shipment unless that person has been specifically informed of the requirements of this section. The outer packaging, as specified in Special Provision N10 of §172.102(c)(5) of this subchapter, must be plainly and durably marked with the required proper shipping name specified in §172.101 of this subchapter, or the words “CIGARETTE LIGHTERS” and the number of devices contained in the package.

(c) For transportation by water in a closed transport vehicle or a closed freight container, the following warning must be affixed to the access doors:

WARNING—MAY CONTAIN EXPLOSIVE MIXTURES WITH AIR—KEEP IGNITION SOURCES AWAY WHEN OPENING.

The warning must be on a contrasting background and must be readily legible from a distance of 8 m (26 feet).

[Amdt. 173-94, 41 FR 16081, Apr. 15, 1976, as amended by Amdt. 173-94A, 41 FR 40683, Sept. 20, 1976; Amdt. 173-120, 43 FR 39792, Sept. 7, 1978; Amdt. 173-165, 48 FR 28101, June 20, 1983; Amdt. 173-224, 55 FR 52665 Dec. 21, 1990; 56 FR 66276, Dec. 20, 1991; 63 FR 37461, July 10, 1998; 66 FR 45381, Aug. 28, 2001]

§ 173.309 Fire extinguishers.

(a) Fire extinguishers charged with a limited quantity of compressed gas to not more than 1660 kPa (241 psig) at 21

°C (70 °F) are excepted from labeling (except when offered for transportation by air) and the specification packaging requirements of this subchapter when shipped under the following conditions. In addition, shipments are not subject to subpart F of part 172 of this subchapter, to part 174 of this subchapter except §174.24 or to part 177 of this subchapter except §177.817.

(1) Each fire extinguisher must have contents which are nonflammable, nonpoisonous, and noncorrosive as defined under this subchapter.

(2) Each fire extinguisher must be shipped as an inner packaging.

(3) Nonspecification cylinders are authorized subject to the following conditions:

(i) The internal volume of each cylinder may not exceed 18 L (1,100 cubic inches). For fire extinguishers not exceeding 900 mL (55 cubic inches) capacity, the liquid portion of the gas plus any additional liquid or solid must not completely fill the container at 55 °C (130 °F). Fire extinguishers exceeding 900 mL (55 cubic inches) capacity may not contain any liquefied compressed gas;

(ii) Each fire extinguisher manufactured on and after January 1, 1976, must be designed and fabricated with a burst pressure of not less than six times its charged pressure at 21 °C (70 °F) when shipped;

(iii) Each fire extinguisher must be tested, without evidence of failure or damage, to at least three times its charged pressure at 21 °C (70 °F) but not less than 825 kPa (120 psig) before initial shipment, and must be marked to indicate the year of the test (within 90 days of the actual date of the original test) and with the words “MEETS DOT REQUIREMENTS.” This marking is considered a certification that the fire extinguisher is manufactured in accordance with the requirements of this section. The words “This extinguisher meets all requirements of 49 CFR 173.306” may be displayed on fire extinguishers manufactured prior to January 1, 1976; and

(iv) For any subsequent shipment, each fire extinguisher must be in compliance with the retest requirements of the Occupational Safety and Health

Administration Regulations of the Department of Labor, 29 CFR 1910.157(e).

(4) Specification 2P or 2Q (§§178.33 and 178.33a of this subchapter) inner nonrefillable metal packagings are authorized for use as fire extinguishers subject to the following conditions:

(i) The liquid portion of the gas plus any additional liquid or solid may not completely fill the packaging at 55 °C (130 °F);

(ii) Pressure in the packaging shall not exceed 1250 kPa (181 psig) at 55 °C (130 °F). If the pressure exceeds 920 kPa (141 psig) at 55 °C (130 °F), but does not exceed 1100 kPa (160 psig) at 55 °C (130 °F), a specification DOT 2P inner metal packaging must be used; if the pressure exceeds 1100 kPa (160 psig) at 55 °C (130 °F), a specification DOT 2Q inner metal packaging must be used. The metal packaging must be capable of withstanding, without bursting, a pressure of one and one-half times the equilibrium pressure of the contents at 55 °C (130 °F); and

(iii) Each completed inner packaging filled for shipment must have been heated until the pressure in the container is equivalent to the equilibrium pressure of the contents at 55 °C (130 °F) without evidence of leakage, distortion, or other defect.

(b) Specification 3A, 3AA, 3E, 3AL, 4B, 4BA, 4B240ET or 4BW (§§178.36, 178.37, 178.42, 178.46, 178.50, 178.51, 178.55 and 178.61 of this subchapter) cylinders are authorized for use as fire extinguishers.

[Amdt. 173-235, 58 FR 50503, Sept. 27, 1993, as amended by Amdt. 173-138, 59 FR 49134, Sept. 26, 1994; Amdt. 173-258, 61 FR 51240, Oct. 1, 1996; 66 FR 45380, 45381, Aug. 28, 2001]

§ 173.314 Compressed gases in tank cars and multi-unit tank cars.

(a) *Definitions.* For definitions of compressed gases, see § 173.115.

(b) *General requirements.* (1) Tank car tanks containing compressed gases must not be shipped unless they were loaded by or with the consent of the owner thereof.

(2) Tank car tanks must not contain gases capable of combining chemically and must not be loaded with any gas which combines chemically with the gas previously loaded therein, until all residue has been removed and interior of tank thoroughly cleaned.

(3) For tanks of the DOT-106A and 110A class, the tanks must be placed in position and attached to car structure by the shipper.

(4) Wherever the word “approved” is used in this part of the regulations, it means approval by the Association of American Railroads Committee on Tank Cars as prescribed in § 179.3 of this subchapter.

(5) Each tank car used for the transportation of anhydrous ammonia or any material that meets the criteria of Division 2.1 or 2.3 must have gaskets for manway cover plates and for mounting of fittings designed (for temperature, application, media, pressure, and size) to create a positive seal so that, under conditions normally incident to transportation, there will not be an identifiable release of the material to the environment. The use of sealants to install gaskets is prohibited.

(c) *Authorized gases, filling limits for tank cars.* A compressed gas in a tank car or a multi-unit tank car must be offered for transportation in accordance with § 173.31 and this section. The named gases must be loaded and offered for transportation in accordance with the following table:

Proper shipping name	Outage and filling limits (see note 1)	Authorized tank car class
Ammonia, anhydrous, or ammonia solutions > 50 percent ammonia.	Notes 2, 10	105, 112, 114, 120.
Ammonia solutions with > 35 percent, but ≤ 50 percent ammonia by mass.	Note 3	106.
	Note 3	105, 109, 112, 114, 120.
Argon, compressed	Note 4	107.
Boron trichloride	Note 3	105, 106.
Carbon dioxide, refrigerated liquid	Note 5	105.
Chlorine	Note 6	105.
	125	106.
Chlorine trifluoride	Note 3	106, 110.