

not exceeding 24 inches. Safety relief devices not required.

(2) The tank must be pneumatically tested to 100 psig. Test pressure must be permanently marked on the tank.

(3) The stress at prescribed pressure must not exceed 20,000 psi using formula:

$$S = Pd / 2t$$

where:

S = wall stress in psi;

P = prescribed pressure for the tank of at least 3 times charged pressure at 70 °F or 100 psig, whichever is greater;

d = inside diameter in inches;

t = minimum wall thickness, in inches.

(4) The burst pressure must be at least 6 times the charge pressure at 70 °F.

(5) Each tank must be overpacked in a strong outside container in accordance with §173.301(a)(8).

(h) A limited quantity which conforms to the provisions of paragraph (a)(1), (a)(3), or (b) of this section and is a "consumer commodity" as defined in §171.8 of this subchapter, may be re-named "consumer commodity" and re-classed as ORM-D material. Each package may not exceed 30 kg (66 pounds) gross weight. In addition to the exceptions provided by paragraphs (a) and (b) of this section—

(1) Outside packagings are not required to be marked "INSIDE CONTAINERS COMPLY WITH PRESCRIBED REGULATIONS";

(2) Shipments of ORM-D materials are not subject to the shipping paper requirements of subpart C of part 172 of this subchapter, unless the material meets the definition of a hazardous substance, a hazardous waste, or a marine pollutant or unless offered for transportation or transported by aircraft; and

(3) Shipments of ORM-D materials are eligible for the exceptions provided in §173.156.

(i) An aerosol is flammable if a positive test result is obtained using any of the following test methods:

(1) Using the Bureau of Explosives' Flame Projection Apparatus, the flame projects more than 18 inches beyond the ignition source with valve opened fully, or the flame flashes back and

burns at the valve with any degree of valve opening.

(2) Using the Bureau of Explosives' Open Drum Apparatus, there is any significant propagation of flame away from the ignition source.

(3) Using the Bureau of Explosives' Closed Drum Apparatus, there is any explosion of the vapor-air mixture in the drum.

[Amdt. 173-94, 41 FR 16079, Apr. 15, 1976]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting §173.306, see the List of CFR Sections Affected which appears in the Finding Aids section of the printed volume and on GPO Access.

**§ 173.307 Exceptions for compressed gases.**

(a) The following materials are not subject to the requirements of this subchapter:

(1) Carbonated beverages.

(2) Except as provided in §175.10(a)(2) of this subchapter, tires when inflated to pressures not greater than their rated inflation pressures.

(3) Balls used for sports.

(4) Refrigerating machines, including dehumidifiers and air conditioners, and components thereof, such as precharged tubing containing:

(i) 12 kg (25 pounds) or less of a non-flammable, non-toxic gas;

(ii) 12 L (3 gallons) or less of ammonia solution (UN2672);

(iii) Except when offered or transported by air, 12 kg (25 pounds) or less of a flammable, non-toxic gas;

(iv) Except when offered or transported by air or vessel, 20 kg (44 pounds) or less of a Group A1 refrigerant specified in ANSI/ASHRAE Standard 15; or

(v) 100 g (4 ounces) or less of a flammable, non-toxic liquefied gas.

(b) [Reserved]

[Amdt. 173-94, 41 FR 16081, Apr. 15, 1976, as amended by Amdt. 173-135, 45 FR 13090, Feb. 28, 1980; 65 FR 50462, Aug. 18, 2000]

**§ 173.308 Cigarette lighter or other similar device charged with fuel.**

(a) In addition to the requirements of §173.21(i), a cigarette lighter or other similar device charged with a flammable gas must be shipped as follows: