subject to the requirements of this subchapter.

[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 at *www.govinfo.gov*.

§ 173.307 Exceptions for compressed gases.

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

(1) Carbonated beverages.

(2) Tires when inflated to pressures not greater than their rated inflation pressures. For transportation by air, tires and tire assemblies must meet the conditions in § 175.8(b)(4) of this subchapter.

(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 nonflammable, 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 (IBR, see § 171.7 of this subchapter); or

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

(5) Manufactured articles or apparatuses, other than light bulbs each containing not more than 100 mg (0.0035 ounce) of inert gas and packaged so that the quantity of inert gas per package does not exceed 1 g (0.035 ounce).

(6) Light bulbs (lamps) conforming to the requirements of § 173.11.

(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; 68 FR 45038, July 31, 2003; 68 FR 75745, Dec. 31, 2003; 69 FR 76174, Dec. 20, 2004; 71 FR 14604, Mar. 22, 2006; 74 FR 2266, Jan. 14, 2009; 76 FR 3380, Jan. 19, 2011; 80 FR 1162, Jan. 8, 2015; 85 FR 83400, Dec. 21, 2020]

§ 173.308 Lighters.

(a) *General requirements.* No person may offer for transportation or transport a lighter (see § 171.8 of this subchapter) containing a Division 2.1 (flammable gas) material except under the following conditions:

(1) The lighter must contain a fuel reservoir not exceeding 4 fluid ounces capacity (7.22 cubic inches), and must contain not more than 10 grams (0.35 ounce) of flammable gas.

(2) The maximum filling density may not exceed 85 percent of the volumetric capacity of each fluid reservoir at 15 °C (59 °F).

(3) Each lighter design, including closures, must be capable of withstanding, without leakage or rupture, an internal pressure of at least two times the pressure of the flammable gas at 55 °C (131 °F).

(4) Each appropriate lighter design must be examined and successfully tested by a person or agency (authorized testing agency) who is authorized by the Associate Administrator to perform such examination and testing under the provisions of subpart E of part 107 of this chapter and who—

(i) Has the equipment necessary to perform the testing required to the level of accuracy required;

(ii) Is able to demonstrate, upon request, the knowledge of the testing procedures and requirements of the HMR relative to lighters;

(iii) Does not manufacture or market lighters, is not financially dependent or owned in whole or in part, by any entity that manufactures or markets lighters;

(iv) Is a resident of the United States; and

(v) Performs all examination and testing in accordance with the requirements of paragraph (b)(3) and (4) of this section.

(5) The Associate Administrator will assign an identification code to each person who is authorized to examine and test lighters. This identification code must be incorporated into a unique test report identifier for each successfully tested lighter design.

(b) *Examination and testing of lighter design types*—(1) *Lighter design type definition.* A new lighter design is one that has never been examined and tested or

one that differs from a previous design in any manner that may affect the escape (leakage) of gas. Lighter characteristics that may affect the escape of gas include changes in materials of construction, ignition mechanism, burner valve design, wall thickness, sealing materials, and type of fuel (e.g., vapor pressure differences).

(2) *Lighter samples submitted for examination and testing.* Samples of a new lighter design are excepted from the requirements of (a)(4) and (d) of this section and may be offered for transportation and transported under the following conditions:

(i) The samples must be transported only to an authorized testing agency;

(ii) No more than 12 lighters may be packaged in a single outer packaging;

(iii) Inner packagings must conform to the requirements of paragraph (c)(1) of this section. For transportation by aircraft, intermediate or outer packagings must meet the pressure differential requirements of §173.27(c) of this part;

(iv) The outer packaging must conform to the requirements of subpart M of part 178 of this subchapter at the Packing Group I performance level and to the requirements of §173.24 of this subpart;

(v) The word ''sample'' must appear on the shipping paper as part of the proper shipping name or in association with the basic description; and

(vi) In addition to other required markings and labels, the package must be marked ''SAMPLE FOR EXAMINATION AND TESTING.''

(vii) All other applicable requirements of this subchapter must be met.

(3) *Examination and testing of sample lighters by an authorized testing agency.* Each sample lighter must be examined for conformance with paragraph (a) of this section by a person authorized by the Associate Administrator. In addition, lighters must be subjected to the following leakage test:

(i) A minimum of six lighters must be examined and tested at one time. Store the lighters in a desiccator for 24 hours. After drying, weigh each lighter on an analytical balance capable of accurately measuring to within 1/10 of a milligram (0.0001 grams).

(ii) After weighing, place the lighters together in an explosion-proof, controlled-temperature laboratory oven capable of maintaining 38 ±1 °C (100 ±2 °F) for 96 continuous hours (4 days). At the end of 96 hours, remove the lighters from the oven and place them in the same desiccator and allow the lighters to cool to ambient temperature.

(iii) After cooling, weigh each lighter and determine the net weight differences for each lighter tested (subtract the mass after oven exposure from the original mass before oven exposure).

(iv) Weight losses must be assessed to determine the quantity of gas that leaked from the lighters and from the weight change as a result of absorbed moisture. If the net weight has increased, the test facility must run the required test using six empty lighters in parallel with the six filled lighters. The parallel tests are conducted to determine the weight of moisture absorbed in the plastic in order to determine the weight loss of the lighters from gas leakage.

(v) If the net weight loss for any one of the six lighters exceeds 20 milligrams (0.020 grams), the design must be rejected.

(vi) Lighters manufactured to a rejected lighter design may not be offered for transportation or transported in commerce unless approved in writing by the Associate Administrator.

(4) *Recordkeeping requirements.* (i) Following the examination of each new lighter design, the person or agency that conducted the examination and test must prepare a test report and make that test report available to the manufacturer. At a minimum, the test report must contain the following information:

(A) Name and address of test facility;

(B) Name and address of applicant;

(C) A test report identifier, that is, the authorized person or agency identifier code immediately followed by an alpha/numeric identifier of four or more characters assigned to the specific lighter design by the authorized person or agency (e.g., ''LAA****,'' where, ''LAA'' is the identification code assigned to the authorized person or agency by the Associate Administrator and ''****'' is replaced with the

unique test report identifier assigned to the specific lighter design by the authorized person or agency);

(D) Manufacturer of the lighter. For a foreign manufacturer, the U.S. agent or importer must be identified;

(E) Description of the lighter design type (e.g., model, dimensions, ignition mechanism, reservoir capacity, lot/batch number) in sufficient detail to ensure conformance with paragraph (b)(4)(iii) of this section; and

(F) A certification by the authorized testing agency that the lighter design conforms to paragraph (a) of this section and passes or does not pass the required leakage test in paragraph (b) of this section.

(ii) For as long as any lighter design is in production and for at least three years thereafter, a copy of each lighter's test report must be maintained by the authorized testing agency that performed the examination and testing and the manufacturer of the design. For a foreign manufacturer, each test report must be maintained in accordance with this paragraph by the foreign manufacturer's U.S. agent or importer.

(iii) Test reports must be traceable to a specific lighter design and must be made available to a representative of the Department upon request.

(5) *Transitional provisions.* Until January 1, 2012, approval numbers issued by the Associate Administrator prior to January 1, 2007 may continue to be marked on packages and annotated on shipping papers, where applicable. After that time, previously issued approvals (*i.e.*, T-***) will no longer be valid and each lighter design currently in production must be re-examined and tested under the provisions of this section.

(c) *Packaging requirements*—(1) *Inner containment.* Lighters must be placed in an inner packaging that is designed to prevent shifting of the lighters and inadvertent ignition or leakage. The ignition device and gas control lever of each lighter must be designed, or securely sealed, taped, or otherwise fastened or packaged to protect against accidental functioning or leakage of the contents during transport. If lighters are packed vertically in a plastic tray, a plastic, fiberboard or paperboard partition must be used to prevent friction between the ignition device and the inner packaging.

(2) *Outer packaging.* Lighters and their inner packagings must be tightly packed and secured against shifting in any rigid specification outer packaging authorized in subpart L of part 178 of this subchapter at the Packing Group II performance level.

(d) *Shipping paper and marking requirements.* (1) In addition to the requirements of subpart C of part 172, shipping papers must be annotated with the lighter design test report identifier (see paragraph (b)(4)(i)(C) of this section) traceable to the test report assigned to the lighters or, if applicable, the previously issued approval number (*i.e.*, T* * *), in association with the basic description.

(2) In addition to the requirements of subpart D of part 172, a lighter design test report identifier (see paragraph (b)(4)(i)(C) of this section) or, if applicable, the previously issued approval number (*i.e.*, T* * *), must be marked on a package containing lighters.

(e) *Exceptions*—(1) *Common or contract carriage.* For highway transportation by common or contract carrier, when no more than 1,500 lighters covered by this section are transported in one motor vehicle, the requirements of subparts C through H of part 172, and part 177 of this subchapter do not apply. Lighters transported in accordance with this paragraph are also excepted from the specification packaging, shipping paper, and marking requirements specified in §173.308(c) and (d). Inner packagings must conform to paragraph (c)(1) of this section. Lighters must be further packaged in rigid, strong outer packagings meeting the general packaging requirements of subpart B of part 173. Outer packagings must be plainly and durably marked, on two opposing sides or ends, with the word ''LIGHTERS'' and the number of devices contained therein in letters measuring at least 20 mm (0.79 in) in height. In addition, the package must include the test report identifier for each lighter design as specified in paragraph (b)(4)(i)(C) of this section or, if applicable, the previously issued approval number (*i.e.*,

T***). The test report identifier or approval number must be durable, legible, in English, and located in, attached to, or marked directly on the package. No person may offer for transportation or transport the lighters or prepare the lighters for shipment unless that person has been specifically informed of the requirements of this section.

(2) *Private carriage.* For highway transportation by a private carrier, lighters that have been examined and successfully tested in accordance with this section are not subject to any other requirements of this subchapter under the following conditions:

(i) No person may offer for transportation or transport the lighters or prepare the lighters for shipment unless that person has been specifically informed of the requirements of this section;

(ii) Lighters must be placed in an inner packaging that is designed to prevent accidental activation of the ignition device or valve, release of gas, and shifting of the lighters (*e.g.*, tray, blister pack, etc.);

(iii) Inner packagings must be placed in a securely closed rigid outer packaging that limits shifting of the inner packagings and protects them from damage;

(iv) The outer package may contain not more than 300 lighters;

(v) A transport vehicle may carry not more than 1,500 lighters at any one time;

(vi) The lighters may not be placed in an outer packaging with other hazardous materials; and

(vii) Outer packagings must be plainly and durably marked with the words ''LIGHTERS, excepted quantity.''

[71 FR 3427, Jan. 23, 2006, as amended at 73 FR 57006, Oct. 1, 2008; 85 FR 75714, Nov. 25, 2020; 85 FR 83400, Dec. 21, 2020]

§ 173.309 Fire extinguishers.

This section applies to portable fire extinguishers for manual handling and operation, fire extinguishers for installation in aircraft, fire extinguishers for installation as part of a fire suppression system, and large fire extinguishers. Fire extinguishers for installation as part of a fire suppression system include cylinders charged with either a compressed gas and an extinguishing agent or a gas which comprises the sole fire extinguishing agent in the system. A fire extinguisher does not include cylinders pressurized with a gas for purposes of expelling a separately stored extinguishing agent in the fire suppression system. Large fire extinguishers include fire extinguishers mounted on wheels for manual handling; fire extinguishing equipment or machinery mounted on wheels or wheeled platforms or units transported similar to (small) trailers; and fire extinguishers composed of a non-rollable pressure drum and equipment, and handled, for example, by fork lift or crane when loaded or unloaded. Cylinders filled with a compressed gas whose purpose is to expel a separately stored extinguishing agent may not be transported under this section when offered for transportation or transported apart from a suppression system.

(a) 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 manufacture and use as fire extinguishers under the following conditions:

(1) Extinguishing agents must be nonflammable, non-poisonous, non-corrosive, and commercially free from corroding components;

(2) Each fire extinguisher must be charged with a nonflammable, non-poisonous, dry gas that has a dew-point at or below minus 46.7 °C (minus 52 °F) at 101 kPa (1 atmosphere) and is free of corroding components, to not more than the service pressure of the cylinder;

(3) A fire extinguisher may not contain more than 30% carbon dioxide by volume or any other corrosive extinguishing agent; and

(4) Each fire extinguisher must be protected externally by suitable corrosion-resisting coating.

(5) Specification 3E and 4BA cylinders must be packed in strong nonbulk outer packagings. The outside of the combination packaging must be marked with an indication that the inner packagings conform to the prescribed specifications.

(b) Specification 2P or 2Q (§§178.33 and 178.33a of this subchapter) inner