

hazardous materials other than the devices.

(g) *Recordkeeping requirements.* (1) Following the examination of each new design type classed as a Class 9 in accordance with paragraph (b)(1) of this section, the person that conducted the examination must prepare a test report and provide the test report to the manufacturer of the safety device. At a minimum, the test report must contain the following information:

- (i) Name and address of the test facility;
 - (ii) Name and address of the applicant;
 - (iii) Manufacturer of the device. For a foreign manufacturer, the U.S. agent or importer must be identified;
 - (iv) A test report number, drawing of the device, and description of the safety device in sufficient detail to ensure that the test report is traceable (*e.g.* a unique product identifier) to a specific design;
 - (v) The tests conducted and the results; and
 - (vi) A certification that the safety device is classed as a Class 9 (UN3268).
- (2) For at least fifteen (15) years after testing, a copy of each test report must be maintained by the authorizing testing agency. For as long as any safety device design is being manufactured, and for at least fifteen (15) years thereafter, a copy of each test report must be maintained by the manufacturer of the product.
- (3) Test reports must be made available to a representative of the Department upon request.

[80 FR 1157, Jan. 8, 2015, as amended at 81 FR 35541, June 2, 2016; 85 FR 83398, Dec. 21, 2020]

§ 173.167 Consumer commodities.

(a) Effective January 1, 2013, a “consumer commodity” (see §171.8 of this subchapter) when offered for transportation by aircraft may only include articles or substances of Class 2 (non-toxic aerosols only), Class 3 (Packing Group II and III only), Division 6.1 (Packing Group III only), UN3077, UN3082, UN3175, UN3334, and UN3335, provided such materials do not have a subsidiary risk and are authorized aboard a passenger-carrying aircraft. Consumer commodities are excepted from the specification outer packaging

requirements of this subchapter. Packages prepared under the requirements of this section are excepted from labeling and shipping papers when transported by highway or rail. Except as indicated in §173.24(i), each completed package must conform to §§173.24 and 173.24a of this subchapter. Additionally, except for the pressure differential requirements in §173.27(c), the requirements of §173.27 do not apply to packages prepared in accordance with this section. Packages prepared under the requirements of this section may be offered for transportation and transported by all modes. As applicable, the following apply:

- (1) *Inner and outer packaging quantity limits.* (i) Non-toxic aerosols, as defined in §171.8 of this subchapter and constructed in accordance with §173.306 of this part, in non-refillable, non-metal containers not exceeding 120 mL (4 fluid ounces) each, or in non-refillable metal containers not exceeding 820 mL (28 ounces) each, except that flammable aerosols may not exceed 500 mL (16.9 ounces) each;
- (ii) Liquids, in inner packagings not exceeding 500 mL (16.9 ounces) each. Liquids must not completely fill an inner packaging at 55 °C;
- (iii) Solids, in inner packagings not exceeding 500 g (1.0 pounds) each; or
- (iv) Any combination thereof not to exceed 30 kg (66 pounds) gross weight as prepared for shipment.

(2) *Closures.* Friction-type closures must be secured by positive means. The body and closure of any packaging must be constructed so as to be able to adequately resist the effects of temperature and vibration occurring in conditions normally incident to air transportation. The closure device must be so designed that it is unlikely that it can be incorrectly or incompletely closed.

(3) *Absorbent material.* Inner packagings must be tightly packaged in strong outer packagings. Absorbent and cushioning material must not react dangerously with the contents of inner packagings. Glass or earthenware inner packagings containing liquids of Class 3 or Division 6.1, sufficient absorbent material must be provided to absorb the entire contents of the largest inner packaging contained in the

outer packaging. Absorbent material is not required if the glass or earthenware inner packagings are sufficiently protected as packaged for transport that it is unlikely a failure would occur and, if a failure did occur, that it would be unlikely that the contents would leak from the outer packaging.

(4) *Drop test capability.* Breakable inner packagings (e.g., glass, earthenware, or brittle plastic) must be packaged to prevent failure under conditions normally incident to transport. Packages of consumer commodities as prepared for transport must be capable of withstanding a 1.2 m drop on solid concrete in the position most likely to cause damage. In order to pass the test, the outer packaging must not exhibit any damage liable to affect safety during transport and there must be no leakage from the inner packaging(s).

(5) *Stack test capability.* Packages of consumer commodities must be capable of withstanding, without failure or leakage of any inner packaging and without any significant reduction in effectiveness, a force applied to the top surface for a duration of 24 hours equivalent to the total weight of identical packages if stacked to a height of 3.0 m (including the test sample).

(b) When offered for transportation by aircraft:

(1) Packages prepared under the requirements of this section are to be marked as a limited quantity in accordance with § 172.315(b)(1) and labeled as a Class 9 article or substance, as appropriate, in accordance with subpart E of part 172 of this subchapter; and

(2) Pressure differential capability: Except for UN3082, inner packagings intended to contain liquids must be capable of meeting the pressure differential requirements (75 kPa) prescribed in § 173.27(c) of this part. The capability of a packaging to withstand an internal pressure without leakage that produces the specified pressure differential should be determined by successfully testing design samples or prototypes.

[78 FR 1115, Jan. 7, 2013, as amended at 78 FR 65482, Oct. 31, 2013; 80 FR 1159, Jan. 8, 2015]

§ 173.168 Chemical oxygen generators.

An oxygen generator, chemical (defined in § 171.8 of this subchapter) may

be transported only under the following conditions:

(a) *Approval.* A chemical oxygen generator that is shipped with an explosive or non-explosive means of initiation attached must be classed and approved by the Associate Administrator in accordance with the procedures specified in § 173.56 of this subchapter.

(b) *Impact resistance.* A chemical oxygen generator, without any packaging, must be capable of withstanding a 1.8 meter drop onto a rigid, non-resilient, flat and horizontal surface, in the position most likely to cause actuation or loss of contents.

(c) *Protection against inadvertent actuation.* A chemical oxygen generator must incorporate one of the following means of preventing inadvertent actuation:

(1) A chemical oxygen generator that is not installed in protective breathing equipment (PBE):

(i) Mechanically actuated devices:

(A) Two pins, installed so that each is independently capable of preventing the actuator from striking the primer;

(B) One pin and one retaining ring, each installed so that each is independently capable of preventing the actuator from striking the primer; or

(C) A cover securely installed over the primer and a pin installed so as to prevent the actuator from striking the primer and cover.

(ii) Electrically actuated devices: The electrical leads must be mechanically shorted and the mechanical short must be shielded in metal foil.

(iii) Devices with a primer but no actuator: A chemical oxygen generator that has a primer but no actuating mechanism must have a protective cover over the primer to prevent actuation from external impact.

(2) A chemical oxygen generator installed in a PBE must contain a pin installed so as to prevent the actuator from striking the primer, and be placed in a protective bag, pouch, case or cover such that the protective breathing equipment is fully enclosed in such a manner that the protective bag, pouch, case or cover prevents unintentional actuation of the oxygen generator.