

(2) An air bag module containing an inflator that has been previously approved for transportation is not required to be submitted for further examination or approval.

(3) An air bag module containing an inflator that has previously been approved as a Division 2.2 material is not required to be submitted for further examination to be reclassified as a Class 9 material.

(4) *Shipments for recycling.* When offered for domestic transportation by highway, rail freight, cargo vessel or cargo aircraft, a serviceable air bag module or seat-belt pretensioner removed from a motor vehicle that was manufactured as required for use in the United States may be offered for transportation and transported without compliance with the shipping paper requirement prescribed in paragraph (c) of this section. However, the word "Recycled" must be entered on the shipping paper immediately after the basic description prescribed in § 172.202 of this subchapter. No more than one device is authorized in the packaging prescribed in paragraph (e)(1), (2) or (3) of this section. The device must be cushioned and secured within the package to prevent movement during transportation.

(e) *Packagings.* Rigid, outer packagings, meeting the general packaging requirements of part 173, and the packaging specification and performance requirements of part 178 of this subchapter at the Packing Group III performance level are authorized as follows. The packagings must be designed and constructed to prevent movement of the articles and inadvertent operation.

(1) 1A2, 1B2, 1G or 1H2 drums.

(2) 3A2 or 3H2 jerricans.

(3) 4C1, 4C2, 4D, 4F, 4G or 4H2 boxes.

(4) Reusable high strength plastic or metal containers or dedicated handling devices are authorized for shipment of air bag inflators, air bag modules, and seat-belt pretensioners from a manufacturing facility to the assembly facility, subject to the following conditions:

(i) The gross weight of the container or handling device may not exceed 1000 kg (2205 pounds). The container or handling device structure must provide adequate support to allow them to be

stacked at least three high with no damage to the containers or devices.

(ii) If not completely enclosed by design, the container or handling device must be covered with plastic, fiberboard, or metal. The covering must be secured to the container by banding or other comparable methods.

(iii) Internal dunnage must be sufficient to prevent shifting of the devices within the container.

(5) Packagings specified in the approval document issued by the Associate Administrator in accordance with paragraph (e) of this section are also authorized.

(f) *Labeling.* Notwithstanding the provisions of § 172.402 of this subchapter, each package or handling device must display a CLASS 9 label. Additional labeling is not required when the package contains no hazardous materials other than the devices.

[Amdt. 173-230, 57 FR 1878, Jan. 16, 1992, as amended by Amdt. 173-241, 59 FR 67509, Dec. 29, 1994; Amdt. 173-261, 62 FR 24733, May 6, 1997; 62 FR 51560, Oct. 1, 1997; 64 FR 10778, Mar. 5, 1999; 65 FR 50461, Aug. 18, 2000; 65 FR 58629, Sept. 29, 2000; 66 FR 8647, Feb. 1, 2001; 66 FR 45183, 45379, Aug. 28, 2001; 68 FR 45034, July 31, 2003; 68 FR 57632, Oct. 6, 2003; 68 FR 61941, Oct. 30, 2003; 71 FR 54395, Sept. 14, 2006; 71 FR 78632, Dec. 29, 2006]

§ 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 a 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.

(d) *Packaging.* After September 30, 2009 a chemical oxygen generator and a chemical oxygen generator installed in equipment, (e.g., a PBE) must be placed in a rigid outer packaging that—

(1) Conforms to the requirements of either:

(i) Part 178, subparts L and M, of this subchapter at the Packing Group I or II performance level; or

(ii) The performance criteria in Air Transport Association (ATA) Specification No. 300 for a Category I Shipping Container.

(2) With its contents, is capable of meeting the following additional requirements when transported by cargo-only aircraft:

(i) The Flame Penetration Resistance Test in part III of Appendix F to 14 CFR part 25, modified as follows:

(A) At least three specimens of the outer packaging materials must be tested;

(B) Each test must be conducted on a flat 16 inch x 24 inch test specimen mounted in the horizontal ceiling position of the test apparatus to represent the outer packaging design;

(C) Testing must be conducted on all design features (latches, seams, hinges, etc.) affecting the ability of the outer packaging to safely prevent the passage of fire in the horizontal ceiling position; and

(D) There must be no flame penetration of any specimen within 5 minutes after application of the flame source, and the maximum allowable temperature at a point 4 inches above the test specimen, centered over the burner cone, must not exceed 205 °C (400 °F).

(ii) The Thermal Resistance Test specified in Appendix D to part 178 of this subchapter.

(iii) None of the following conditions may occur when one generator in the package is actuated:

(A) Actuation of other generators in the package;

(B) Ignition of the packaging materials; and

(C) A temperature above 100 °C (212 °F) on the outside surface temperature of the package.

(iv) All features of the packaging must be in good condition, including all latches, hinges, seams, and other features, and the packaging must be free from perforations, cracks, dents, or other abrasions that may negatively affect the flame penetration resistance and thermal resistance characteristics of the packaging, verified by a visual inspection of the package before each shipment.

(e) *Equipment marking.* The outside surface of a chemical oxygen generator must be marked to indicate the presence of an oxygen generator (e.g., "oxygen generator, chemical"). The outside surface of equipment containing a chemical oxygen generator that is not readily apparent (e.g., a sealed passenger service unit) must be clearly marked to indicate the presence of the oxygen generator (example: "Oxygen Generator Inside").

(f) *Items forbidden in air transportation.* (1) A chemical oxygen generator

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is forbidden for transportation on board a passenger-carrying aircraft.

(2) A chemical oxygen generator is forbidden for transportation by both passenger-carrying and cargo-only aircraft after:

- (i) The manufacturer’s expiration date; or
- (ii) The contents of the generator have been expended.

EFFECTIVE DATE NOTES: 1. At 72 FR 4455, Jan. 1, 2007, §173.168 was added, effective Oct. 1, 2007.

2. At 72 FR 55092, Sept. 28, 2007, the effectiveness of the amendment at 72 FR 4455, Jan. 31, 2007 was delayed until Oct. 1, 2008.

3. At 72 FR , 2007, §173.168 was amended by revising paragraphs (d) introductory text, (d)(1), (d)(2) introductory text and (d)(2)(i), effective Oct. 1, 2008. For the convenience of the user, the added and revised text is set forth as follows:

§ 173.168 Chemical oxygen generators.

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(d) *Packaging.* A chemical oxygen generator and a chemical oxygen generator installed in equipment, (e.g., a PBE) must be placed in a rigid outer packaging that—

- (1) Conforms to the requirements of either:
 - (i) Part 178, subparts L and M, of this subchapter at the Packing Group I or II performance level; or
 - (ii) The performance criteria in Air Transport Association (ATA) Specification No. 300 for a Category I Shipping Container.

(2) After September 30, 2009, with its contents, is capable of meeting the following additional requirements when transported by cargo-only aircraft:

- (i) The Flame Penetration Resistance Test in Appendix E to part 178 of this subchapter;

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§ 173.170 Black powder for small arms.

Black powder for small arms that has been classed in Division 1.1 may be reclassified as a Division 4.1 material, for domestic transportation by motor vehicle, rail freight, and cargo vessel only, subject to the following conditions:

- (a) The powder must be examined and approved for Division 1.1 and Division 4.1 classification in accordance with §§ 173.56 and 173.58;
- (b) The total quantity of black powder in one motor vehicle, rail car, or freight container may not exceed 45.4

kg (100 pounds) net mass, and no more than four freight containers may be on board one cargo vessel;

(c) The black powder must be packed in inner metal or heavy wall conductive plastic receptacles not over 454 g (16 ounces) net capacity each, with no more than 25 cans in one outer UN 4G fiberboard box. The inner packagings must be arranged and protected so as to prevent simultaneous ignition of the contents. The complete package must be of the same type which has been examined as required in §173.56;

(d) Each completed package must be marked “BLACK POWDER FOR SMALL ARMS” and “NA 0027”; and

(e) Each package must bear the FLAMMABLE SOLID label.

[Amdt. 173–255, 61 FR 50626, Sept. 26, 1996, as amended at Amdt. 173–255, 62 FR 14338, Mar. 26, 1997]

§ 173.171 Smokeless powder for small arms.

Smokeless powder for small arms which has been classed in Division 1.3 may be reclassified in Division 4.1, for transportation by motor vehicle, rail car, vessel, or cargo-only aircraft, subject to the following conditions:

(a) The powder must be examined and approved for a Division 1.3 and Division 4.1 classification in accordance with §§ 173.56 and 173.58 of this part.

(b) The total quantity of smokeless powder may not exceed 45.4 kg (100 pounds) net mass in:

- (1) One rail car, motor vehicle, or cargo-only aircraft; or
- (2) One freight container on a vessel, not to exceed four freight containers per vessel.

(c) Only combination packagings with inner packagings not exceeding 3.6 kg (8 pounds) net mass are authorized. Inner packagings must be arranged and protected so as to prevent simultaneous ignition of the contents. The complete package must be of the same type which has been examined as required in §173.56 of this part.

(d) Inside packages that have been examined and approved by the Associate Administrator may be packaged in UN 4G fiberboard boxes meeting the Packing Group I performance level, provided all inside containers are packed to prevent shifting and the net