

**§ 178.33a-9**

be selected at random and subjected to the test under which failure occurred. These containers shall be complete with ends assembled. Should any of the ten containers thus tested fail, the entire lot must be rejected. All containers constituting a lot shall be of like material, size, design, construction, finish and quality.

[Order 71, 31 FR 9074, July 1, 1966. Redesignated at 32 FR 5606, Apr. 5, 1967, as amended by 66 FR 45387, Aug. 28, 2001]

**§ 178.33a-9 Marking.**

(a) By means of printing, lithographing, embossing, or stamping, each container must be marked to show:

(1) DOT-2Q.

(2) Name or symbol of person making the mark specified in paragraph (a)(1) of this section. Symbol, if used, must be registered with the Associate Administrator.

(b) [Reserved]

[Amdt. 178-40, 41 FR 38181, Sept. 9, 1976, as amended by Amdt. 178-97, 56 FR 66287, Dec. 20, 1991; 66 FR 45386, Aug. 28, 2001]

**§ 178.33b Specification 2S; inner non-refillable plastic receptacles.**

**§ 178.33b-1 Compliance.**

(a) Required in all details.

(b) [Reserved]

[74 FR 2268, Jan. 14, 2009]

**§ 178.33b-2 Type and size.**

(a) Single-trip inside containers.

(b) The maximum capacity of containers in this class shall not exceed one liter (61.0 cubic inches). The maximum inside diameter shall not exceed 3 inches.

[74 FR 2268, Jan. 14, 2009]

**§ 178.33b-3 Inspection.**

(a) By competent inspector.

(b) [Reserved]

[74 FR 2268, Jan. 14, 2009]

**§ 178.33b-4 Duties of inspector.**

(a) To inspect material and completed containers and witness tests, and to reject defective materials or containers.

**49 CFR Ch. I (10-1-10 Edition)**

(b) [Reserved]

[74 FR 2268, Jan. 14, 2009]

**§ 178.33b-5 Material.**

(a) The receptacles must be constructed of polyethylene terephthalate (PET), polyethylene naphthalate (PEN), polyamide (Nylon) or a blend of PET, PEN, ethyl vinyl alcohol (EVOH) and/or Nylon.

(b) Material with seams, cracks, laminations or other injurious defects are forbidden.

[74 FR 2268, Jan. 14, 2009]

**§ 178.33b-6 Manufacture.**

(a) Each container must be manufactured by thermoplastic processes that will assure uniformity of the completed container. No used material other than production residues or regrind from the same manufacturing process may be used. The packaging must be adequately resistant to aging and to degradation caused either by the substance contained or by ultraviolet radiation.

(b) [Reserved]

[74 FR 2268, Jan. 14, 2009]

**§ 178.33b-7 Design qualification test.**

(a) *Drop testing.* (1) To ensure that creep does not affect the ability of the container to retain the contents, each new design must be drop tested as follows: Three groups of twenty-five filled containers must be dropped from 1.8 m (5.9 ft) on to a rigid, non-resilient, flat and horizontal surface. One group must be conditioned at 38 °C (100 °F) for 26 weeks, the second group for 100 hours at 50 °C (122 °F) and the third group for 18 hours at 55 °C (131 °F), prior to performing the drop test. The closure, or sealing component of the container, must not be protected during the test. The orientation of the test container at drop must be statistically random, but direct impact on the valve or valve closure must be avoided.

(2) *Criteria for passing the drop test:* The containers must not break or leak.

(b) Design qualification testing must be completed if the design is manufactured with a new mold or if there is