

- 178.512 Standards for steel or aluminum boxes.
- 178.513 Standards for boxes of natural wood.
- 178.514 Standards for plywood boxes.
- 178.515 Standards for reconstituted wood boxes.
- 178.516 Standards for fiberboard boxes.
- 178.517 Standards for plastic boxes.
- 178.518 Standards for woven plastic bags.
- 178.519 Standards for plastic film bags.
- 178.520 Standards for textile bags.
- 178.521 Standards for paper bags.
- 178.522 Standards for composite packagings with inner plastic receptacles.
- 178.523 Standards for composite packagings with inner glass, porcelain, or stoneware receptacles.

**Subpart M—Testing of Non-bulk Packagings and Packages**

- 178.600 Purpose and scope.
- 178.601 General requirements.
- 178.602 Preparation of packagings and packages for testing.
- 178.603 Drop test.
- 178.604 Leakproofness test.
- 178.605 Hydrostatic pressure test.
- 178.606 Stacking test.
- 178.607 Cooperage test for bung-type wooden barrels.
- 178.608 Vibration standard.
- 178.609 Test requirements for packagings for infectious substances.

**Subpart N—IBC Performance-Oriented Standards**

- 178.700 Purpose, scope and definitions.
- 178.702 IBC codes.
- 178.703 Marking of IBCs.
- 178.704 General IBC standards.
- 178.705 Standards for metal IBCs.
- 178.706 Standards for rigid plastic IBCs.
- 178.707 Standards for composite IBCs.
- 178.708 Standards for fiberboard IBCs.
- 178.709 Standards for wooden IBCs.
- 178.710 Standards for flexible intermediate bulk containers.

**Subpart O—Testing of IBCs**

- 178.800 Purpose and scope.
- 178.801 General requirements.
- 178.802 Preparation of fiberboard IBCs for testing.
- 178.803 Testing and certification of IBCs.
- 178.810 Drop test.
- 178.811 Bottom lift test.
- 178.812 Top lift test.
- 178.813 Leakproofness test.
- 178.814 Hydrostatic pressure test.
- 178.815 Stacking test.
- 178.816 Topple test.
- 178.817 Righting test.
- 178.818 Tear test.
- 178.819 Vibration test.

APPENDIX A TO PART 178—SPECIFICATIONS FOR STEEL

APPENDIX B TO PART 178—ALTERNATIVE LEAKPROOFNESS TEST METHODS

APPENDIX C TO PART 178—NOMINAL AND MINIMUM THICKNESSES OF STEEL DRUMS AND JERRICANS

AUTHORITY: 49 U.S.C. 5101-5127; 49 CFR 1.53.

**§ 178.1 Purpose and scope.**

This part prescribes the manufacturing and testing specifications for packaging and containers used for the transportation of hazardous materials in commerce.

[Amdt. 178-40, 42 FR 2689, Jan. 13, 1977. Redesignated by Amdt. 178-97, 55 FR 52715, Dec. 21, 1990]

**§ 178.2 Applicability and responsibility.**

(a) *Applicability.* (1) The requirements of this part apply to packagings manufactured—

(i) To a DOT specification, regardless of country of manufacture; or

(ii) To a UN standard, for packagings manufactured within the United States. For UN standard packagings manufactured outside the United States, see §173.24(d)(2) of this subchapter. For UN standard packagings for which standards are not prescribed in this part, see §178.3(b).

(2) A manufacturer of a packaging subject to the requirements of this part is primarily responsible for compliance with the requirements of this part. However, any person who performs a function prescribed in this part shall perform that function in accordance with this part.

(b) *Specification markings.* When this part requires that a packaging be marked with a DOT specification or UN standard marking, marking of the packaging with the appropriate DOT or UN markings is the certification that—

(1) Except as otherwise provided in this section, all requirements of the DOT specification or UN standard, including performance tests, are met; and

(2) All functions performed by, or on behalf of, the person whose name or symbol appears as part of the marking conform to requirements specified in this part.

### § 178.3

(c) *Notification.* Except as specifically provided in §§ 178.337-18 and 178.345-10 of this part, the manufacturer or other person certifying compliance with the requirements of this part, and each subsequent distributor of that packaging shall—

(1) Notify in writing each person to whom that packaging is transferred—

(i) Of all requirements in this part not met at the time of transfer, and

(ii) With information specifying the type(s) and dimensions of the closures, including gaskets and any other components needed to ensure that the packaging is capable of successfully passing the applicable performance tests. This information must include any procedures to be followed, including closure instructions for inner packagings and receptacles, to effectively assemble and close the packaging for the purpose of preventing leakage in transportation. For packagings sold or represented as being in conformance with the requirements of this subchapter applicable to transportation by aircraft, this information must include relevant guidance to ensure that the packaging, as prepared for transportation, will withstand the pressure differential requirements in “ 173.27 of this subchapter.

(2) Retain copies of each written notification for at least one year from date of issuance; and

(3) Make copies of all written notifications available for inspection by a representative of the Department.

(d) Except as provided in paragraph (c) of this section, a packaging not conforming to the applicable specifications or standards in this part may not be marked to indicate such conformance.

(e) *Definitions.* For the purpose of this part—

*Manufacturer* means the person whose name and address or symbol appears as part of the specification markings required by this part or, for a packaging marked with the symbol of an approval agency, the person on whose behalf the approval agency certifies the packaging.

*Specification markings* mean the packaging identification markings required by this part including, where applicable, the name and address or symbol of

### 49 CFR Ch. I (10-1-06 Edition)

the packaging manufacturer or approval agency.

(f) No packaging may be manufactured or marked to a packaging specification that was in effect on September 30, 1991, and that was removed from this part 178 by a rule published in the FEDERAL REGISTER on December 21, 1990 and effective October 1, 1991.

[Amdt. 178-97, 55 FR 52715, Dec. 21, 1990; 56 FR 66284, Dec. 20, 1991, as amended by Amdt. No. 178-106, 59 FR 67519, Dec. 29, 1994; Amdt. 178-117, 62 FR 14338, Mar. 26, 1997; 68 FR 45041, July 31, 2003; 69 FR 34612, June 22, 2004]

### § 178.3 Marking of packagings.

(a) Each packaging represented as manufactured to a DOT specification or a UN standard must be marked on a non-removable component of the packaging with specification markings conforming to the applicable specification, and with the following:

(1) In an unobstructed area, with letters, and numerals identifying the standards or specification (e.g. UN 1A1, DOT 4B240ET, etc.).

(2) Unless otherwise specified in this part, with the name and address or symbol of the packaging manufacturer or, where specifically authorized, the symbol of the approval agency certifying compliance with a UN standard. Symbols, if used, must be registered with the Associate Administrator. Duplicative symbols are not authorized.

(3) The markings must be stamped, embossed, burned, printed or otherwise marked on the packaging to provide adequate accessibility, permanency, contrast, and legibility so as to be readily apparent and understood.

(4) Unless otherwise specified, letters and numerals must be at least 12.0 mm (0.47 inches) in height except that for packagings of less than or equal to 30 L (7.9 gallons) capacity for liquids or 30 kg (66 pounds) capacity for solids the height must be at least 6.0 mm (0.2 inches). For packagings having a capacity of 5 L (1 gallon) or 5 kg (11 pounds) or less, letters and numerals must be of an appropriate size.

(5) For packages with a gross mass of more than 30 kg (66 pounds), the markings or a duplicate thereof must appear on the top or on a side of the packaging.