

Re-fillable containers *complying with DOT leakproofness testing and inspections*

Prepared for:

TPSA Pesticide and Ag Plastic Stewardship Conference

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<http://www.dot.gov/> - Department of Transportation website --- this is the source for answer's

- (a) **General.** Each IBC constructed in accordance with a UN standard for which a test or inspection specified in paragraphs (b)(1), (b)(2) and (b)(3) of this section is required may not be filled and offered for transportation or transported until the test or inspection has been successfully completed. This paragraph does not apply to any IBC filled prior to the test or inspection due date. The requirements in this section do not apply to DOT 56 and 57 portable tanks.
- (b) **Test and inspections for metal, rigid plastic, and composite IBCs - [§178.813](#)**
- (c) **Visual inspection for flexible, fiberboard, or wooden IBCs. [§178.703](#)**
- (d) **Requirements applicable to repair of IBCs. [§178.813](#)**
- (e) **Requirements applicable to routine maintenance of IBCs.**
- (f) **Retest date. [§178.703\(b\)](#)**
- (g) **Record retention.**

§178.813 Leakproofness test.

- (a) **General.** The leakproofness test must be conducted for the qualification of all IBC design types and on all production units intended to contain solids that are loaded or discharged under pressure or intended to contain liquids.
- (b) **Special preparation for the leakproofness test.** **Vented closures must either be replaced by similar non-vented closures or the vent must be sealed.** For metal IBC design types, the initial test must be carried out before the fitting of any thermal insulation equipment. The inner receptacle of a composite IBC may be tested without the outer packaging provided the test results are not affected.
- (c) **Test method and pressure applied.** The leakproofness test must be carried out for a suitable length of time using air at a gauge pressure of not less than 20 kPa (2.9 psig). Leakproofness of IBC design types must be determined by coating the seams and joints with a heavy oil, a soap solution and water, or other methods suitable for the purpose of detecting leaks. Other methods, if at least equally effective, may be used in accordance with [appendix B](#) of this part, or if approved by the Associate Administrator, as provided in [§178.801\(i\)](#).
- (d) **Criterion for passing the test.** For all IBC design types intended to contain solids that are loaded or discharged under pressure or intended to contain liquids, there may be no leakage of air from the IBC.

IBC – containers larger than 119 gallons

- **§180.352(b)(1)** Each IBC intended to contain solids that are loaded or discharged under pressure or intended to contain liquids must be tested in accordance with the leak-proofness test prescribed in [§178.813](#) of this subchapter prior to its first use in transportation and every **2.5 years** thereafter, starting from the date of manufacture or the date of a repair conforming to paragraph (d)(1) of this section. For this test, the IBC is not required to have its closures fitted.

Non bulk – containers 119 gallons or smaller

- **§173.28 (b) Reuse of non-bulk packaging.** A non-bulk packaging used more than once must conform to the following provisions and limitations:
- (b)(2) **Before reuse**, packaging subject to the leak-proofness test with air prescribed in [§178.604](#) of this sub-chapter shall be—

§173.28 Reuse, reconditioning and remanufacture of packaging.

- (b)(7) Notwithstanding the provisions of paragraph (b)(2) of this section, a **packaging otherwise authorized for reuse may be reused without being leakproofness tested with air provided the packaging-**
- (b)(7)(i) Is refilled with a material which is compatible with the previous lading;
- (b)(7)(ii) Is refilled and offered for transportation by the original filler;
- (b)(7)(iii) Is transported in a transport vehicle or freight container under the exclusive use of the refiller of the packaging; and
- (b)(7)(iv) Is constructed of-
- (b)(7)(iv)(A) Stainless steel, monel or nickel with a thickness not less than one and one-half times the minimum thickness prescribed in paragraph (b)(4) of this section;
- (b)(7)(iv)(B) Plastic, provided the packaging is not refilled for reuse on a date more than **five years from the date of manufacture** marked on the packaging in accordance with §178.503(a)(6) of this subchapter; or
- (b)(7)(iv)(C) Another material or thickness when approved under the conditions established by the Associate Administrator for reuse without retesting.



Questions