

(3) Training for personnel making the repairs in paragraphs (d)(1) and (d)(2) of this section must include:

- (i) Proper use of the devices and tools in the applicable kits;
 - (ii) Use of respiratory equipment and all other safety equipment; and
 - (iii) Knowledge of the properties of chlorine and sulphur dioxide.
- (4) Packagings repaired with “A” or “B” kits must be properly blocked and braced to ensure the packagings are secured in the transport vehicle.

(f) *Large salvage packagings.* Except for transportation by air, packages of hazardous materials that are damaged, defective, or leaking; packages found to be not conforming to the requirements of this subchapter after having been placed in transportation; and, hazardous materials that have spilled or leaked may be placed in a large salvage packaging that is compatible with the lading and shipped for repackaging or disposal under the following conditions:

(1) Large salvage packagings must be tested and marked in accordance with part 178, subparts P and Q of this subchapter at the Packing Group II or higher performance standards for large packagings intended for the transport of solids or inner packagings, except as follows:

(i) The test substance used in performing the tests shall be water, and the large salvage packagings must be filled to not less than 98 percent of their maximum capacity; and

(ii) Large salvage packagings must have been successfully subjected to a leakproofness test of 30 kPa (4.4 psig).

(2) Each large salvage packaging shall be provided when necessary with sufficient cushioning and absorption material to prevent excessive shifting of the contents and to eliminate the presence of any free liquid at the time the packaging is closed. All cushioning and absorbent material used in the large salvage packaging must be compatible with the hazardous material.

(3) Each large salvage packaging must be marked with the proper shipping name of the hazardous material inside the packaging and the name and address of the consignee. In addition, the packaging must be marked “SALVAGE”. The lettering of the marking

must be at least 12 mm (0.5 inches) high.

(4) Each large salvage packaging shall be labeled as prescribed for the respective material.

(5) The shipper shall prepare shipping papers in accordance with subpart C of part 172 of this subchapter.

(6) The overpack requirements of § 173.25 do not apply to large salvage packagings used in accordance with this paragraph.

[Amdt. 173-224, 55 FR 52607, Dec. 21, 1990]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 173.3, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at www.govinfo.gov.

§ 173.4 Small quantities for highway and rail.

(a) When transported domestically by highway or rail in conformance with this section, quantities of Division 2.2 (except aerosols with no subsidiary hazard), Class 3, Division 4.1, Division 4.2 (PG II and III), Division 4.3 (PG II and III), Division 5.1, Division 5.2, Division 6.1, Class 7, Class 8, and Class 9 materials are not subject to any other requirements when—

(1) The maximum quantity of material per inner receptacle or article is limited to—

(i) Thirty (30) mL (1 ounce) for authorized liquids, other than Division 6.1, Packing Group I, Hazard Zone A or B materials;

(ii) Thirty (30) g (1 ounce) for authorized solid materials;

(iii) One (1) g (0.04 ounce) for authorized materials meeting the definition of a Division 6.1, Packing Group I, Hazard Zone A or B material; and

(iv) [Reserved]

(v) Thirty (30) mL water capacity (1.8 cubic inches) for authorized Division 2.2 materials.

(2) With the exception of temperature sensing devices, each inner receptacle:

(i) Is not liquid-full at 55 °C (131 °F), and

(ii) Is constructed of plastic having a minimum thickness of no less than 0.2 mm (0.008 inch), or earthenware, glass, or metal;

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(3) Each inner receptacle with a removable closure has its closure held securely in place with wire, tape, or other positive means;

(4) Unless equivalent cushioning and absorbent material surrounds the inside packaging, each inner receptacle is securely packed in an inside packaging with cushioning and absorbent material that:

(i) Will not react chemically with the material, and

(ii) Is capable of absorbing the entire contents (if a liquid) of the receptacle;

(5) The inside packaging is securely packed in a strong outer packaging;

(6) The completed package, as demonstrated by prototype testing, is capable of sustaining—

(i) Each of the following free drops made from a height of 1.8 m (5.9 feet) directly onto a solid unyielding surface without breakage or leakage from any inner receptacle and without a substantial reduction in the effectiveness of the package:

(A) One drop flat on bottom;

(B) One drop flat on top;

(C) One drop flat on the long side;

(D) One drop flat on the short side; and

(E) One drop on a corner at the junction of three intersecting edges; and

(ii) A compressive load as specified in § 178.606(c) of this subchapter.

NOTE TO PARAGRAPH (a)(6): Each of the tests in paragraph (a)(6) of this section may be performed on a different but identical package; *i.e.*, all tests need not be performed on the same package.

(7) Placement of the material in the package or packing different materials in the package does not result in a violation of § 173.21;

(8) The gross mass of the completed package does not exceed 29 kg (64 pounds);

(9) The package is not opened or otherwise altered until it is no longer in commerce; and

(10) The shipper certifies conformance with this section by marking the outside of the package with the statement “This package conforms to 49 CFR 173.4 for domestic highway or rail transport only.”

(b) A package containing a Class 7 (radioactive) material also must conform to the requirements of § 173.421(a)

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through (e), § 173.424(a) through (g), or § 173.426(a) through (c) as applicable.

(c) Packages which contain a Class 2 (other than those authorized in paragraph (a) of this section), Division 4.2 (PG I), or Division 4.3 (PG I) material conforming to paragraphs (a)(1) through (10) of this section may be offered for transportation or transported if approved by the Associate Administrator.

(d) Lithium batteries and cells are not eligible for the exceptions provided in this section.

[74 FR 2253, Jan. 14, 2009, as amended at 75 FR 5393, Feb. 2, 2010; 76 FR 3368, Jan. 19, 2011; 79 FR 40610, July 11, 2014; 80 FR 72924, Nov. 23, 2015]

§ 173.4a Excepted quantities.

(a) Excepted quantities of materials, other than articles (e.g., aerosols), are not subject to requirements of this subchapter except for:

(1) The shipper’s responsibilities to properly class their material in accordance with § 173.22 of this subchapter;

(2) Sections 171.15 and 171.16 of this subchapter pertaining to the reporting of incidents; and

(3) For a Class 7 (Radioactive) material the requirements for an excepted package.

(4) Packagings for which retention of liquid is a basic function must be capable of withstanding without leakage the pressure differential specified in § 173.27(c) of this part.

(b) *Authorized materials.* Only materials authorized for transport aboard passenger aircraft and appropriately classed within one of the following hazard classes or divisions may be transported in accordance with this section:

(1) Division 2.2 material with no subsidiary hazard. An aerosol is not included as authorized Division 2.2 material;

(2) Class 3 materials;

(3) Class 4 (PG II and III) materials except for self-reactive materials;

(4) Division 5.1 (PG II and III);

(5) Division 5.2 materials only when contained in a chemical kit, first aid kit or a polyester resin kit;

(6) Division 6.1, other than PG I, Hazard Zone A or B material;

(7) Class 7, Radioactive material in excepted packages