

§ 173.164

49 CFR Ch. I (10–1–13 Edition)

direction of the owner, the requalifier may render the cylinder incapable of holding pressure.

[71 FR 33880, June 12, 2006]

§ 173.164 Mercury (metallic and articles containing mercury).

(a) For transportation by aircraft, mercury must be packaged in packagings which meet the requirements of part 178 of this subchapter at the Packing Group I performance level, as follows:

(1) In inner packagings of earthenware, glass or plastic containing not more than 3.5 kg (7.7 pounds) of mercury, or inner packagings that are glass ampoules containing not more than 0.5 kg (1.1 pounds) of mercury, or iron or steel quicksilver flasks containing not more than 35 kg (77 pounds) of mercury. The inner packagings or flasks must be packed in steel drums (1A1, 1A2), metal, other than steel or aluminum drums (1N1, 1N2), steel jerricans (3A2), wooden boxes (4C1, 4C2), plywood boxes (4D), reconstituted wood boxes (4F), fiberboard boxes (4G), metal, other than steel or aluminum boxes (4N), plastic boxes (4H2), plywood drums (1D) or fiber drums (1G).

(2) [Reserved]

(3) When inner packagings of earthenware, glass or plastic are used, they must be packed in the outer packaging with sufficient cushioning material to prevent breakage.

(4) Either the inner packagings or the outer packagings must have inner linings or bags of strong leakproof and puncture-resistant material impervious to mercury, completely surrounding the contents, so that the escape of mercury will be prevented irrespective of the position of the package.

(5) When transported as cargo, lamps are excepted from the requirements of this subchapter provided, each lamp contains not more than 1 g of mercury and is packaged so that there is not more than 30 g of mercury per package. Packages must be so designed and constructed such that when dropped from a height of not less than 0.5 meter (1.5 feet) the packages must still be fit for transport and there must be no damage to the contents.

(b) When transported as cargo, manufactured articles or apparatuses, each

containing not more than 100 mg (0.0035 ounce) of mercury and packaged so that the quantity of mercury per package does not exceed 1 g (0.035 ounce) are not subject to the requirements of this subchapter.

(c) Manufactured articles or apparatuses containing mercury are excepted from the specification packaging requirements of this subchapter when packaged as follows:

(1) Manufactured articles or apparatuses of which metallic mercury is a component part, such as manometers, pumps, thermometers, switches, etc. (for electron tubes, mercury vapor tubes and similar tubes, see paragraph (c)(3) of this section), must be in strong outer packagings, having sealed inner liners or bags of strong leakproof and puncture-resistant material impervious to mercury, which will prevent the escape of mercury from the package irrespective of its position. Mercury switches and relays are excepted from these packaging requirements, if they are totally enclosed, leakproof and in sealed metal or plastic units.

(2) When transported as cargo, thermometers, switches and relays, each containing a total quantity of not more than 15 g (0.53 ounces) of mercury, are excepted from the requirements of this subchapter if installed as an integral part of a machine or apparatus and so fitted that shock of impact damage, leading to leakage of mercury, is unlikely to occur under conditions normally incident to transport.

(3) Electron tubes, mercury vapor tubes and similar tubes must be packaged as follows:

(i) Tubes which are packed in strong outer packagings with all seams and joints sealed with self-adhesive, pressure-sensitive tape which will prevent the escape of mercury from the package, are authorized up to a total net quantity of 450 g (15.9 ounces) of mercury per package;

(ii) Tubes with more than 450 g (15.9 ounces) of mercury are authorized only when packed in strong outer packagings, having sealed inner liners or bags of strong leakproof and puncture-

resistant material impervious to mercury which will prevent escape of mercury from the package irrespective of its position;

(iii) Tubes which do not contain more than 5 g (0.2 ounce) of mercury each and which are packed in the manufacturer's original packagings, are authorized up to a total net quantity of 30 g (1.1 ounces) of mercury per package;

(iv) Tubes which are completely jacketed in sealed leakproof metal cases are authorized in the manufacturer's original packagings.

(4) A person offering for transportation electron tubes, mercury vapor tubes, and similar tubes shall indicate the quantity of mercury therein on the shipping paper.

(5) Mercurial barometers conforming to paragraph (c)(1) of this section, which are loaded and unloaded from an aircraft under the supervision of, and accompanied in flight by, a National Weather Service official or similar United States agency official, are exempted from any other requirements of this subchapter.

(d) For transportation by other than aircraft, mercury must be packaged—

(1) In any packaging which meets the requirements of part 178 of this subchapter at the Packing Group III performance level; or

(2) In non-specification reusable metal packagings.

(e) Except for a hazardous substance or a hazardous waste or for transportation by aircraft or vessel, packages containing less than 0.45 kg (1.0 pound) net weight of mercury are not subject to the requirements of this subchapter.

(f) For vessel transport, manufactured articles or instruments containing less than 0.45 kg (1.0 pound) of mercury are not subject to the requirements of this subchapter.

[Amdt. 173-224, 55 FR 52643, Dec. 21, 1990, as amended at 56 FR 66270, Dec. 20, 1991; Amdt. 173-241, 59 FR 67509, Dec. 29, 1994; Amdt. 173-246, 60 FR 49110, Sept. 21, 1995; 64 FR 10777, 10778, Mar. 5, 1999; 68 FR 57632, Oct. 6, 2003; 78 FR 1085, Jan. 7, 2013]

§ 173.165 Polyester resin kits.

(a) Polyester resin kits consisting of a base material component (Class 3, Packing Group II or III) and an activator component (Type D, E, or F or-

ganic peroxide that does not require temperature control)—

(1) The organic peroxide component must be packed in inner packagings not over 125 mL (4.22 fluid ounces) net capacity each for liquids or 500 g (17.64 ounces) net capacity each for solids.

(2)(i) Except for transportation by aircraft, the flammable liquid component must be packaged in suitable inner packagings.

(ii) For transportation by aircraft, a Packing Group II base material is limited to a quantity of 5 L (1.3 gallons) in metal or plastic inner packagings and 1 L (0.3 gallons) in glass inner packagings. A Packing Group III base material is limited to a quantity of 10 L (2.6 gallons) in metal or plastic inner packagings and 2.5 L (0.66 gallons) in glass inner packagings.

(3) If the flammable liquid component and the organic peroxide component will not interact dangerously in the event of leakage, they may be packed in the same outer packaging.

(4) The Packing Group assigned will be II or III, according to the criteria for Class 3, applied to the base material. Additionally, polyester resin kits must be packaged in specification combination packagings, based on the performance level required of the base material (II or III) contained within the kit, as prescribed in §§ 173.202 or 173.203 of this subchapter, as appropriate.

(5) For transportation by aircraft, the following additional requirements apply:

(i) Closures on inner packagings containing liquids must be secured by secondary means;

(ii) Inner packagings containing liquids must be capable of meeting the pressure differential requirements prescribed in § 173.27(c); and

(iii) The total quantity of activator and base material may not exceed 5 kg (11 lbs) per package for a Packing Group II base material. The total quantity of activator and base material may not exceed 10 kg (22 lbs) per package for a Packing Group III base material. The total quantity of polyester resin kits per package is calculated on a one-to-one basis (i.e., 1 L equals 1 kg).

(b) Polyester resin kits are eligible for the Small Quantity exceptions in