rail) of this subchapter except §174.24 (Shipping papers), and to part 177 (Carriage by highway) of this subchapter except §177.817 (Shipping papers).

(c) Except as provided in paragraph (b) of this section, chemical kits must be packed in 4G fiberboard boxes with inner glass receptacles of not over 1 L (0.3 gallon) capacity each, securely cushioned and separated from other inside containers. The contents of the kit must be of such a nature and so packed that there will be no possibility of the mixture of contents causing dangerous evolution of heat or gas.

[Amdt. 173–224, 55 FR 52643, Dec. 21, 1990, as amended by 66 FR 45381, Aug. 28, 2001]

§ 173.162 Gallium.

(a) Except when packaged in cylinders or steel flasks, gallium must be packaged in packagings which meet the requirements of part 178 of this subchapter at the Packing Group I performance level for transportation by aircraft, and at the Packing Group III performance level for transport by highway, rail or vessel, as follows:

(1) In combination packagings intended to contain liquids consisting of glass, earthenware or rigid plastic inner packagings with a maximum net mass of 15 kg (33 pounds) each. The inner packagings must be packed in wood boxes (4C1, 4C2, 4D, 4F), fiberboard boxes (4G), plastic boxes (4H1, 4H2), fiber drums (1G) or removable head steel and plastic drums or jerricans (1A2, 1H2, 3A2 or 3H2) with sufficient cushioning materials to prevent breakage. Either the inner packagings or the outer packagings must have an inner liner that is leakproof or bags of strong leakproof and puncture-resistant material impervious to the contents and completely surrounding the contents to prevent it from escaping from the package, irrespective of its position.

(2) In packagings intended to contain liquids consisting of semi-rigid plastic inner packagings of not more than 2.5 kg (5.5 pounds) net capacity each, individually enclosed in a sealed, leaktight bag of strong puncture-resistant material. The sealed bags must be packed in wooden (4C1, 4C2), plywood (4D), reconstituted wood (4F), fiberboard (4G) or plastic (4H1, 4H2) boxes or in fiber (1G) or steel (1A2) drums, which are lined with leak-tight, puncture-resistant material. Bags and liner material must be chemically resistant to gallium.

(3) Cylinders and steel flasks with vaulted bottoms are also authorized.

(b) When it is necessary to transport gallium at low temperatures in order to maintain it in a completely solid state, the above packagings may be overpacked in a strong, water-resistant outer packaging which contains dry ice or other means of refrigeration. If a refrigerant is used, all of the above materials used in the packaging of gallium must be chemically and physically resistant to the refrigerant and must have impact resistance at the low temperatures of the refrigerant employed. If dry ice is used, the outer packaging must permit the release of carbon dioxide gas.

(c) Manufactured articles or apparatuses, each containing not more than 100 mg (0.0035 ounce) of gallium and packaged so that the quantity of gallium per package does not exceed 1 g (0.35 ounce) are not subject to the requirements of this subchapter.

[64 FR 10777, Mar. 5, 1999; as amemded at 66 FR 33430, June 21, 2001]

§ 173.163 Hydrogen fluoride.

Hydrogen fluoride (hydrofluoric acid, anhydrous) must be packaged in a specification 3, 3A, 3AA, 3B, 3BN, 3E, or 4A cylinder; or a specification 4B, 4BA, or 4BW cylinder, if the cylinder is not brazed. Filling density may not exceed 85 percent of the cylinder's water weight capacity. In place of the periodic hydrostatic retest, cylinders used in exclusive service may be given a complete external visual inspection in conformance with part 180, subpart C, of this subchapter, at the time such retest becomes due. Cylinders removed from hydrogen fluoride service must be condemned in accordance with §180.205 of this subchapter or, at the direction of the owner, rendered incapable of holding pressure.

[67 FR 51643, Aug. 8, 2002]