

§ 173.302b Additional requirements for shipment of non-liquefied (permanent) compressed gases in UN pressure receptacles.

(a) *General.* A cylinder filled with a non-liquefied gas must be offered for transportation in UN pressure receptacles subject to the requirements in this section and §173.302. In addition, the requirements in §§173.301 and 173.301b must be met.

(b) *UN pressure receptacles filling limits.* A UN pressure receptacle is authorized for the transportation of non-liquefied compressed gases as specified in this section. Except where filling limits are specifically prescribed in this section, the working pressure of a UN pressure receptacle may not exceed $\frac{2}{3}$ of the test pressure of the receptacle. Alternatively, the filling limits specified for non-liquefied gases in Table 1 of P200 of the UN Recommendations (IBR, see §171.7 of this subchapter) are authorized. In no case may the internal pressure at 65 °C (149 °F) exceed the test pressure.

(c) *Fluorine, compressed, UN 1045 and Oxygen difluoride, compressed, UN 2190.* Fluorine, compressed and Oxygen difluoride, compressed must be packaged in a UN pressure receptacle with a minimum test pressure of 200 bar and a maximum working pressure not to exceed 30 bar. A UN pressure receptacle made of aluminum alloy is not authorized. The maximum quantity of gas authorized in each UN pressure receptacle is 5 kg.

(d) *Diborane and diborane mixtures, UN 1911.* Diborane and diborane mixtures must be packaged in a UN pressure receptacle with a minimum test pressure of 250 bar and a maximum filling ratio dependent on the test pressure not to exceed 0.07. Filling should be further limited so that if complete decomposition of diborane occurs, the pressure of diborane or diborane mixtures will not exceed the working pressure of the cylinder. The use of UN tubes and MEGCs is not authorized.

(e) *Carbon monoxide, compressed UN 1016.* Carbon monoxide, compressed is authorized in UN pressure receptacles. The settled pressure in a steel pressure receptacle containing carbon monoxide may not exceed $\frac{1}{3}$ of the pressure receptacle's test pressure at 65 °C (149 °F) except, if the gas is dry and sulfur-free, the settled pressure may not exceed $\frac{1}{2}$ of the marked test pressure.

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