

Brief summary on IS 662 Anhydrous Ammonia — Specification (Second Revision)

Anhydrous ammonia refers to the commercial grade of ammonia gas containing 99.90 to 99.98 percent of ammonia. By definition anhydrous ammonia (NH₃) means high purity ammonia without water ('Anhydrous'). Anhydrous ammonia or ammonia is a colourless gas at room temperature and pressure with a strong and pungent odour.

Anhydrous ammonia is used for refrigeration purposes, and also for other industrial purposes such as for the manufacture of nitric acid, in the preparation of liquor ammonia, etc. Anhydrous ammonia is used as a fertilizer for direct application to soil, its requirements are being covered under separate Indian Standard.

IS 622 (Second Revision) was first published in 1955 and revised in 1980. The second revision has been brought out to incorporate the requirements of oxygen and carbon dioxide along with their method of test and purity of anhydrous ammonia in terms of percentage by mass.

This standards prescribes the requirements and method of sampling and test for following two grades of anhydrous ammonia:

- a) Grade 1 — For refrigeration purposes and other uses where a relatively purer material is essential; and
- b) Grade 2 — For miscellaneous industrial uses, such as for the manufacture of nitric acid, for the preparation of liquor ammonia, etc.

The standard mandates that cylinders used for packing anhydrous ammonia shall comply with the Gas Cylinder Rules 2016 of the Government of India. However, this standard does not contain aspects of safety for handling and transport of ammonia as this is covered under IS 4544:1968.
