

AMMONIUM CARBONICUM
(Am. carb.)

Chemical symbol : $\text{NH}_4\text{HCO}_3 \cdot \text{NH}_4\text{CO}_2\text{NH}_2$

Common names : Ammonii carbonas, Carbonas ammonicus, Volatile salt; *French*: Carbonated' ammoniaque; *German*: Kohlensaures Ammonium.

Description : Ammonium carbonate consists of ammonium bicarbonate (NH_4HCO_3) and ammonium carbonate ($\text{NH}_4\text{COONH}_2$) in varying proportions. A white powder or hard, white or translucent masses, having a strong odour of ammonia. On exposure to air, it loses ammonia and carbon-dioxide, becoming opaque and is finally converted into a white powder. Soluble in 4 parts of water and is partly soluble in alcohol. It may be prepared from an intimate mixture of ammonium sulphate and calcium carbonate. It yield not less than 30 percent and not more than 33 percent of NH_3 .

Identification : (i) When heated, it is volatilized without charring and the vapour is strongly alkaline to moistened *litmus paper*.

(ii) Aqueous solution of it effervesces with acids.

(iii) Yields *reactions* characteristic of *ammonium* salts.

Arsenic : Not more than 2 parts per million.

Lead : Not more than 5 parts per million.

Non-volatile matter : Leaves, when volatilized, not more than 0.01 percent of residue.

Assay : Place in a weighing bottle about 10 ml of *water*, tare the bottle and its contents, add about 2 g of *Ammonium carbonicum* (accurately weighed). Transfer the contents of the bottle to a 250 ml flask, add 50 ml of 1 N *sulphuric acid* and when solution has been affected, add *methyl orange* and titrate the excess acid with 1 N *sodium hydroxide*. Each ml of 1 N *sulphuric acid* is equivalent to 0.01703 g of NH_3 .

Storage : Preserve in well-closed light resistant containers preferably and a temperature not above 30°.

History and authority : Allen's Encyclop. Mat. Med. Vol. I, 259. Hering's Guid. Symp. Vol. I, 229.

Preparation : (a) Mother Solution Drug strength 1/10
Ammonium Carbonicum in crystalline salt 100 g
Purified Water in sufficient quantity

to make one thousand millilitres of the Mother Solution.

(b) Potencies: 2x and higher up to 6x with Purified Water to be prepared freshly for immediate use. 7x and higher to be prepared with *Dispensing Alcohol*.

Old method : Class Va.