

**Revised Monograph Appeared in HPI Vol. VIII**

**ACIDUM NITRICUM**

(Ac. nit.)

**Chemical symbol** : HNO<sub>3</sub>

**Mol. Wt.**: 63.013

**Common names** : Acidum nitri, aquafortis, Hydrogen nitrate, Nitric acid; *French*: Acide azotique s. nitrique; *German*: Salpetersaure.

**Description** : A fuming liquid, very caustic, has a characteristic and highly irritating odour. It is miscible with water and dilute alcohol in all proportions. Its specific gravity is 1.41. It boils at 120°. It is prepared by oxidation of ammonia with air in the presence of platinum as catalyst. It attacks most metals evolving brown fumes. Contains not less than 69 percent and not more than 71 percent w/w of HNO<sub>3</sub>.

**Identification** : (i) It is strongly acidic even when freely diluted with *water*.

(ii) When neutralised, responds to the *reactions* characteristic of nitrates.

**Arsenic** : Not more than 5 parts per million,

**Copper & Zinc** : Dilute 1 ml with 20 ml of water and add a slight excess of dilute solution of *ammonia*; a blue colour is produced. Into this mixture pass *hydrogen sulphide*, a precipitate is not produced.

**Chloride** : 5 ml neutralised with *dilute ammonia* solution complies with the *limit test* for chloride,

**Lead** : Not more than 2 parts per million, **Iron** : 0.5 ml complies with the *limit test for iron*,

**Sulphate** : To 2.5 ml, add 10 mg of *sodium bicarbonate* and evaporate to dryness on a water-bath; the residue dissolved in *water*, complies with the *limit test for sulphates*,

**Non-volatile matter** : Not more than 0.01 percent w/w.

**Assay** : Weigh accurately about 4 g into a stoppered flask, containing 40 ml of *water* and titrate with 1 N *sodium hydroxide* using solution of methyl orange as indicator. Each ml of 1 N *sodium hydroxide* is equivalent to 0.06302 g of HNO<sub>3</sub>.

**History and authority** : The first proving were made under Hahnemann's directions. Allen's Encyclop. Mat. Med. Vol. VII, 10.

**Preparation** : (a) Mother Solution Drug Strength 1/10

Acidum Nitricum            141 g  
Purified Water in sufficient quantity  
to make one thousand millilitres of the Mother Solution.

(b) Potencies: 2x and 3x with Purified Water, to be freshly made for immediate use only. 4x and 5x with *dilute alcohol*. 6x and above with *Dispensing Alcohol*.

**Storage** : The preparations of this acid upto 3x potency are to be stored in well closed containers with glass stopper.

**Old method** : Class Va