28.08 - Nitric acid; sulphonitric acids.

(A) NITRIC ACID

Nitric acid (HNO_3) is mainly obtained by oxidising ammonia in the presence of a catalyst (platinum, iron, chromium, bismuth or manganese oxides, etc.). Alternatively, nitrogen and oxygen may be directly combined in an electric-arc furnace and the resulting nitric oxide oxidised. It can also be prepared by the action of sulphuric acid (alone or associated with sodium disulphate) on natural sodium nitrate; the impurities (sulphuric or hydrochloric acids, nitrous fumes) are eliminated by distillation and hot air.

Nitric acid is a colourless or yellowish toxic liquid. In concentrated form (fuming nitric acid), it gives off clouds of yellowish nitrous fumes. It attacks the skin and destroys organic matter; it is a powerful oxidising agent. It is presented in glass or earthenware carboys or aluminium containers.

Its uses include the manufacture of nitrates (of silver, mercury, lead, copper, etc.), organic dyes, explosives (nitroglycerol, collodion cotton, trinitrotoluene, picric acid, mercury fulminate, etc.); the pickling of metals (especially for pickling cast iron); copperplate engraving; gold or silver refining.

(B) SULPHONITRIC ACIDS

Sulphonitric acids are mixtures in definite proportions (e.g., equal parts) of concentrated nitric and sulphuric acids. They are highly corrosive, viscous liquids, generally presented in sheet-iron drums.

They are used, in particular, for nitrating organic compounds in the synthetic dyestuffs industry, and in the manufacture of nitrocellulose and explosives.

The heading **does not cover** :

(a) Aminosulphonic acid (sulphamic acid) (**heading 28.11**) (not to be confused with the sulphonitric acids above).

(b) Hydrogen azide, nitrous acid and the various oxides of nitrogen (also **heading 28.11**).