

SPECIAL REAGENTS

Fusion mixture. Grind thoroughly in a mortar one formula weight of sodium carbonate with two formula weights of potassium nitrate.

Glyoxylic (reduced oxalic) acid. Cover with distilled water 10 grams of powdered magnesium in a large flask. Add slowly 250 cc. of saturated oxalic acid solution, cooling in running water during the addition of the acid. Shake, filter and wash the ppt. twice with water. Acidify the filtrate with acetic acid and make up to 1 liter.

Günzberg's reagent. Dissolve 2 grams of phloroglucin and 1 gram of vanillin in 100 cc. of 95% alcohol.

Iodine solution. Dissolve 10 grams of iodine in 1 liter of 2% potassium iodide solution.

Lugol's solution. Dissolve 4 grams of iodine in 100 cc. of a 6% potassium iodide solution.

Millon's reagent. Dissolve (without heating) 30 cc. (400 grains) of mercurry in 570 cc. (800 grains) of conc. nitric acid. Dilute the solution with 2 volumes of water. The solution contains mercurous and mercuric nitrates, excess of HNO₃ acid and a small amount of nitrous acid.

Mörner's reagent. Mix 1 volume of carmin and 45 volumes of water and add 55 volumes of conc. sulfuric acid.

Nylander's solution. Dissolve 4 grams of Rochelle salt in 100 cc. of 10% sodium hydroxide solution. Add 2 grams of bismuth subnitrate and heat on a water bath for 1 hour. The solution is saturated with the bismuth compound. Cool and filter.

Obermayer's reagent. Dissolve 3 grams of ferric chloride in 1 liter of conc. hydrochloric acid.

Olive oil emulsion. Add to commercial olive oil (which contain free oleic acid) in a flask 1 drop of 1% alcoholic phenolphthalein solution to every 10 cc. of oil. Add 0.1 N sodium hydroxide solution until it is shaking until the mixture is neutral.

Schweitzer's reagent. To 200 cc. of 5% copper sulfate solution containing 10 grams of ammonium chloride, add potassium ferrocyanide solution until ppt. is complete. Filter and wash the ppt. carefully with water. Dissolve 3 grams of the moist ppt. in 1 liter of 10% sodium hydroxide.

Seliwanoff's reagent. Dissolve 0.05 gram of resorcin in 10 cc. of dilute (1:2) hydrochloric acid.

Sodium hypobromite solution. Dissolve 100 grams of sodium hydroxide in 250 cc. of water. Preserve in a rubber-stoppered bottle and, when needed for use, add 1 cc. of bromine to 15 cc. of the conc. hydroxide solution. The hypobromite solution should always be freshly prepared.

Tincture of guaiacum. Dissolve 1 gram of guaiac resin in 60 cc. of 95% alcohol.

Töpfer's reagent. Dissolve 0.5 gram of dimethylaminonzo-benzol in 100 cc. of 95% alcohol.

Uffelmann's reagent. Add ferric chloride solution to a 1% phenol solution until the solution assumes an amethyst-blue color.