

1. Reagents and Test Solutions

Urea NH_2CONH_2 (Guaranteed)

Vanadic Acid-Molybdic Acid TS Weigh 1.12 g of ammonium metavanadate, dissolve in about 300 ml of hot water, and add 250 ml of nitric acid. Weigh 27 g of powdered ammonium molybdate, and dissolve in about 400 ml of hot water. Mix both solutions, cool, and add water to make 1,000 ml. Store in a colored bottle, and use after 3 or 4 days.

Vinyl Acetate $\text{CH}_3\text{COOCHCH}_2$ Vinyl Acetate occurs as a colorless liquid, and dissolves in toluene.

Refractive index: $n_D^{20} = 1.393 - 1.397$.

Water Determination TS Weigh 63 g of iodine, dissolve in 100 ml of pyridine for Water Determination, cool in ice. Pass dry sulfur dioxide through the solution until an increase in the weight of the solution reaches 32.3 g. Then, add methanol for Water Determination to make 500 ml, allow to stand for 24 hours or longer, and use. Since this solution deteriorates with time, it must be standardized before use. Protect from light and moisture, and store in a cold place.

Standardization: Transfer 25 ml of methanol for Water Determination into a dry titration flask, and add carefully Water Determination TS to the end point as directed under Procedure in Water Determination. Add quickly about 50 mg of water, accurately weighed, and titrate with Water Determination TS, protecting from moisture, to the end point. The number of mg (f) of water (H_2O) equivalent to 1 ml of Water Determination TS is obtained by the formula

$$f = \frac{\text{Weight of adding water (H}_2\text{O) (mg)}}{\text{Titration volume of Water Determination TS for water (ml)}}$$

Weakly Acidic Cation- exchange Resin (fine) See Cation- exchange Resin, Weakly Acidic (fine).

Weakly Basic Anion-exchange Resin See Anion-exchange Resin, Weakly Basic.

Weakly Basic Diethylaminoethyl-Bridged Cellulose Anion-exchanger See DEAE - Bridged Cellulose Anion-exchanger(-O \cdot C $_2$ H $_4$ \cdot N(C $_2$ H $_5$) $_2$ Type), Weakly Basic.

White Sugar Use refined white sugar specified under the Japanese Pharmacopoeia.

White Wax Use White Wax specified under the Japanese Pharmacopoeia.

Wijs TS Measure 7.9 g of trichloroiodide, add acetic acid and dissolve. Measure 8.9 g of iodine, add acetic acid and dissolve. Mix two solutions, and add acetic acid to make 1,000 ml. Store in a light-resistant glass-container.

Xylene $\text{C}_6\text{H}_4(\text{CH}_3)_2$ (Extra grade)

Xylene Cyanol FF (Guaranteed)

Xylenol Orange $\text{C}_{31}\text{H}_{30}\text{N}_2\text{Na}_2\text{O}_{13}\text{S}$

Xylenol Orange TS Weigh 0.1 g of xylenol orange, and dissolve in water to make 100 ml.

Yeast Extract Yeast Extract is a powder, prepared from the water-soluble peptone-like substances which are produced by yeast (*Saccharomyces*). The peptone-like substances are clarified under optimum conditions, evaporated to dryness, and powdered. 1 g of Yeast Extract is obtained from not less than 7.5 g of yeast. Yeast Extract occurs as a reddish-yellow to brown powder, having a characteristic but non-putrescent odor. Yeast Extract makes a yellow-to-brown weakly-acidic solution in water. It contains no added carbohydrates.

Purity: (1) Chloride Not more than 5% (as NaCl)

1. Reagents and Test Solutions

(2) Coagulable proteins On heating Yeast Extract solution (1 20) to boiling, no precipitate is observed.

Loss on Drying: Not more than 5% (105 , constant weight).

Residue on Ignition: Not more than 15% (0.5 g).

Nitrogen Content: 7.2 - 9.5% (105 , constant weight, after drying, Nitrogen Determination).

Yellow Mercuric Oxide See Mercuric Oxide, Yellow.

Zeolite for Gas Chromatography Use natural or synthetic zeolite prepared for Gas Chromatography.

Zinc Zn (Guaranteed)

Zinc (Standard reagent) Zn (Standard reagent)

Zinc, Arsenic - free See Zinc for Arsenic Analysis

Zinc Acetate $\text{Zn}(\text{CH}_3\text{COO})_2 \cdot 2\text{H}_2\text{O}$ [Zinc Acetate (Dihydrate) (Zinc Acetate), Guaranteed]

Zinc Chloride ZnCl_2 (Guaranteed)

Zinc Dust See Zinc powder.

Zinc for Arsenic Analysis Use 1,000- to 1,410- μm zinc for arsenic analysis. Porous one must not be used because it dissolves too rapidly in general. Suitable one leaves a small amount of insoluble residue after the procedure and allows the evolution of hydrogen.

Zinc Iodide-Starch TS Boil 100 ml of water, and add 5 ml of potassium iodide solution (3 20) and 10 ml of zinc chloride solution (1 5). While boiling and stirring, add the uniform suspension prepared by weighing 5 g of starch and adding 30 ml of cold water. Continue to boil for 2 minutes, and cool. Stopper tightly, and store in a cold place.

Zinc Powder Zn (Zinc powder, Guaranteed)

Zinc Sulfate $\text{ZnSO}_4 \cdot 7\text{H}_2\text{O}$ (Zinc Sulfate, Heptahydrate, Guaranteed)