Ferric Chloride CS—Dissolve about 55 g of ferric chloride (FeCl₃ \cdot 6H₂O) in enough of a mixture of 25 mL of hydrochloric acid and 975 mL of water to make 1000 mL. Pipet 10 mL of this solution into a 250-mL iodine flask, add 15 mL of water, 3 g of potassium iodide, and 5 mL of hydrochloric acid, and allow the mixture to stand for 15 minutes. Dilute with 100 mL of water, and titrate the liberated iodine with 0.1 N sodium thiosulfate VS, adding 3 mL of starch TS as the indicator. Perform a blank determination with the same quantities of the same reagents, and make any necessary correction. Each mL of 0.1 N sodium thiosulfate is equivalent to 27.03 mg of FeCl₃ \cdot 6H₂O. Adjust the final volume of hydrochloric acid and water so that each mL contains 45.0 mg of FeCl₃ \cdot 6H₂O.

INDICATORS SOLUTIONS

See TEST SOLUTIONS.

TEST SOLUTIONS (TS)

Change to read:

1. USE AS INDICATORS

Certain test solutions are intended for use as Adetectors of a shift in solution composition (e.g., hydrogen ion, complexometric precipitation, iodometric determination, etc.).

2. VOLUMETRIC SOLUTIONS USED AS TEST SOLUTIONS

Where it is directed that a volumetric solution be used as the test solution in a qualitative procedure, standardization of the solution used as the test solution is not required.

3. SOLUTIONS PREPARED FRESH

In general, the directive to prepare a solution "fresh" indicates that the solution is of limited stability and must be prepared on the day of use.

Acetaldehyde TS—Mix 4 mL of acetaldehyde, 3 mL of alcohol, and 1 mL of water. Prepare this solution fresh.

Acetate Buffer TS—Dissolve 320 g of ammonium acetate in 500 mL of water, add 5 mL of glacial acetic acid, dilute with water to 1000.0 mL, and mix. This solution has a pH between 5.9 and 6.0.

1 M Acetic Acid TS—Transfer 57.4 mL of glacial acetic acid to a 1000-mL volumetric flask. Dilute with water to volume.

2 M Acetic Acid TS—Transfer 114.8 mL of glacial acetic acid to a 1000-mL volumetric flask. Dilute with water to volume.

0.008 M Acetic Acid TS—Transfer 0.5 mL of glacial acetic acid to a 1000-mL volumetric flask containing about 250 mL of water. Cool and dilute with water to volume.

0.3 N Acetic Acid TS—Transfer 17.2 mL of glacial acetic acid to a 1000-mL volumetric flask containing about 500 mL of water. Cool and dilute with water to volume.

Acetic Acid, Glacial, TS—Determine the water content of a specimen of glacial acetic acid by the *Titrimetric Method* (see *Water Determination* (921)). If the acid contains more than

low to stand overnight, and again determine the water content. If the acid contains less than 0.02% of water, add sufficient water to make the final concentration between 0.02% and 0.4%, mix, allow to stand overnight, and again determine the water content. Repeat the adjustment with acetic anhydride or water, as necessary, until the resulting solution shows a water content of not more than 0.4%.

Acetic Acid, Strong, TS—Add 300.0 mL of glacial acetic acid, and dilute with water to 1000 mL. This solution contains about 30% (v/v) of CH₃COOH and has a concentration of about 5 N.

Acetic Acid–Ammonium Acetate Buffer TS—Dissolve 77.1 g of ammonium acetate in water, add 57 mL of glacial acetic acid, and dilute with water to 1000 mL.

Acetone, Buffered, TS—Dissolve 8.15 g of sodium acetate and 42 g of sodium chloride in about 100 mL of water, and add 68 mL of 0.1 N hydrochloric acid and 150 mL of acetone. Mix, and dilute with water to 500 mL.

Acid Ferric Chloride TS—Mix 60 mL of glacial acetic acid with 5 mL of sulfuric acid, add 1 mL of ferric chloride TS, mix, and cool.

Acid Ferrous Sulfate TS-See Ferrous Sulfate, Acid, TS.

Acid Stannous Chloride TS—See Stannous Chloride, Acid, TS.

Acid Stannous Chloride TS, Stronger—See Stannous Chloride, Acid, Stronger, TS.

Albumen TS—Carefully separate the white from the yolk of a strictly fresh hen's egg. Shake the white with 100 mL of water until mixed and all but the chalaza has undergone solution; then filter. Prepare the solution fresh.

Alcohol–Phenol TS—Dissolve 780 mg of phenol in alcohol to make 100 mL.

Alcoholic TS—It contains 95 parts of specially denaturated alcohol 3A with 5 parts of isopropyl alcohol. The final concentrations are approximately 90% alcohol, 5% methanol, and 5% isopropanol.

[NOTE—A suitable grade is available as Reagent alcohol, catalog number R8382, available at www.sigma-aldrich. com.]

Alcoholic Ammonia TS—See Ammonia TS, Alcoholic.

Alcoholic Mercuric Bromide TS—See Mercuric Bromide TS, Alcoholic.

Alcoholic Potassium Hydroxide TS—See 0.5 N Alcoholic Potassium Hydroxide VS.

Alkaline Cupric Citrate TS—See Cupric Citrate TS, Alkaline.

Alkaline Cupric Citrate TS 2—See Cupric Citrate TS 2, Alkaline.

Alkaline Cupric Iodide TS—See Cupric Iodide TS, Alkaline.

Alkaline Cupric Tartrate TS (Fehling's Solution)—See Cupric Tartrate TS, Alkaline.

Alkaline Mercuric–Potassium Iodide TS—See Mercuric–Potassium Iodide TS, Alkaline.

Alkaline Picrate TS—See Picrate TS, Alkaline.