Ammonium Nitrate, NH_4NO_3—**80.04** [6484-52-2]—Use ACS reagent grade.

Ammonium Oxalate, $(NH_4)_2C_2O_4 \cdot H_2O$—**142.11** [6009-70-7]—Use ACS reagent grade.

Ammonium Persulfate *(Ammonium Peroxydisulfate),* $(NH_4)_2S_2O_8$—**228.20** [7727-54-0]—Use ACS reagent grade Ammonium Peroxydisulfate.

Ammonium Phosphate, Dibasic *(Diammonium Hydrogen Phosphate),* $(NH_4)_2HPO_4$—**132.06** [7783-28-0]—Use ACS reagent grade.

Ammonium Phosphate, Monobasic *(Ammonium Dihydrogen Phosphate),* $NH_4H_2PO_4$—**115.03** [7722-76-1]—Use ACS reagent grade.

Ammonium Pyrrolidinedithiocarbamate *(1-pyrrolidine-carbodithioic acid, ammonium salt),* $C_5H_{12}N_2S_2$—**164.29** [5108-96-3]—Use a suitable grade.

Ammonium Reineckate *(Reinecke Salt),* $NH_4[Cr(NH_3)_2(SCN)_4] \cdot H_2O$—**354.44** [13573-16-5]—Dark red crystals or red, crystalline powder. Moderately soluble in cold water; more soluble in hot water. Gradually decomposes in solution.

SENSITIVENESS: Dissolve 50 mg in 10 mL of water. Add 0.2 mL of the solution to 1 mL of a solution of 10 mg of choline chloride in 20 mL of water, and shake gently: a distinct precipitate forms within 5 to 10 seconds.

Ammonium Sulfamate, $NH_4OSO_2NH_2$—**114.13** [7773-06-0]—Use ACS reagent grade.

Ammonium Sulfate, $(NH_4)_2SO_4$—**132.14** [7783-20-2]—Use ACS reagent grade.

Ammonium Thiocyanate *(Ammonium Rhodanide),* NH_4SCN—**76.12** [1762-95-4]—Use ACS reagent grade.

Ammonium Vanadate *(Ammonium Metavanadate),* NH_4VO_3—**116.98** [7803-55-6]—White, crystalline powder. Slightly soluble in cold water; soluble in hot water and in dilute ammonia TS.

ASSAY: Weigh accurately about 500 mg, transfer to a suitable container, add 30 mL of water and 2 mL of dilute sulfuric acid (1 in 4), swirl to dissolve, and pass sulfur dioxide gas through the solution until reduction is complete and the solution is bright blue in color. Boil gently while passing a stream of carbon dioxide through the solution to remove any excess sulfur dioxide, then cool, and titrate with 0.1 N potassium permanganate VS. Each mL of 0.1 N potassium permanganate consumed is equivalent to 11.7 mg of NH_4VO_3. Not less than 98.0% is found.

SOLUBILITY IN AMMONIUM HYDROXIDE: Dissolve 1 g in a mixture of 3 mL of ammonium hydroxide and 50 mL of warm water: the solution is clear and colorless.

CARBONATE: To 500 mg add 1 mL of water and 2 mL of diluted hydrochloric acid: no effervescence is produced.

CHLORIDE: Dissolve 250 mg in 40 mL of hot water, add 2 mL of nitric acid, and allow to stand for 1 hour. Filter, and to the filtrate add 0.5 mL of silver nitrate TS: any turbidity produced does not exceed that of a blank containing 0.5 mg of added Cl (0.2%).

SULFATE: Dissolve 500 mg in 50 mL of hot water, and add 2 mL of diluted hydrochloric acid and 1.5 g of hydroxylamine hydrochloride. Heat at 60° for 3 minutes, filter, cool, and add to the filtrate 2 mL of barium chloride TS: no turbidity or precipitate is produced within 30 minutes.

Amyl Acetate *(Pentyl Acetate),* $CH_3CO_2C_5H_{11}$—**130.18** [628-63-7]—Use a suitable grade with a content of NLT 99%.

Amyl Alcohol *(Isoamyl Alcohol),* $C_5H_{11}OH$—**88.15** [123-51-3]—Use ACS reagent grade Isopentyl Alcohol.

***tert*-Amyl Alcohol,** $C_5H_{12}O$—**88.15** [75-85-4]—Clear, colorless, flammable, volatile liquid.

SPECIFIC GRAVITY ⟨841⟩: about 0.81.

BOILING RANGE (Reagent test): not less than 95%, between 100° and 103°.

RESIDUE ON EVAPORATION: Evaporate 50 mL (40 g) on a steam bath, and dry at 105° for 1 hour: the residue weighs not more than 1.6 mg (0.004%).

ACIDS AND ESTERS: Dilute 20 mL with 20 mL of alcohol, add 5.0 mL of 0.1 N sodium hydroxide VS, and reflux gently for 10 minutes. Cool, add 2 drops of phenolphthalein TS, and titrate the excess sodium hydroxide with 0.1 N hydrochloric acid VS: not more than 0.75 mL of the 0.10 N sodium hydroxide is consumed, correction being made for the amount consumed in a blank (0.06% as amyl acetate).

ALDEHYDES: Shake 5 mL with 5 mL of potassium hydroxide solution (30 in 100) in a glass-stoppered cylinder for 5 minutes, and allow to separate: no color develops in either layer.

α-Amylase—Use a suitable grade. It can be from vegetal or animal or microbiological origin.

(*E*)-Anethole *(1-Methoxy-4-(1-propenyl)benzene),* $C_{10}H_{12}O$—**148.20** [4180-23-8]—Use a suitable grade of *trans* isomer.

Anhydrous Alumina—See *Alumina, Anhydrous.*

Anhydrous Barium Chloride—See *Barium Chloride, Anhydrous.*

Anhydrous Calcium Chloride—See *Calcium Chloride, Anhydrous.*

Anhydrous Cupric Sulfate—See *Cupric Sulfate, Anhydrous.*

Anhydrous Dibasic Sodium Phosphate—See *Sodium Phosphate, Dibasic,Anhydrous.*

Anhydrous Magnesium Perchlorate—See *Magnesium Perchlorate, Anhydrous.*

Anhydrous Magnesium Sulfate—See *Magnesium Sulfate, Anhydrous.*

Anhydrous Methanol—See *Methanol, Anhydrous.*

Anhydrous Potassium Carbonate—See *Potassium Carbonate, Anhydrous.*

Anhydrous Sodium Acetate—See *Sodium Acetate, Anhydrous.*

Anhydrous Sodium Carbonate—See *Sodium Carbonate, Anhydrous.*

Anhydrous Sodium Sulfate—See *Sodium Sulfate, Anhydrous.*

Anhydrous Sodium Sulfite—See *Sodium Sulfite, Anhydrous.*

Aniline, $C_6H_5NH_2$—**93.13** [62-53-3]—Use ACS reagent grade.

Aniline Blue *(Certified Biological Aniline Blue)* [8004-91-9]—A water-soluble dye consisting of a mixture of the trisulfonates of triphenylpararosaniline and of diphenylrosaniline.