tain a solution having a known concentration of about 1 mg per mL.

Salicylic acid standard preparation—Transfer 5.0 mL of *Salicylic acid stock standard solution* to a 50-mL volumetric flask, add 5.0 mL of *Internal standard solution,* dilute with *Solvent mixture* to volume, and mix.

Codeine phosphate stock standard solution—Transfer about 325*J* mg of USP Codeine Phosphate RS, accurately weighed, to a 25-mL volumetric flask, *J* being the ratio of the labeled amount, in mg, of codeine phosphate to the labeled amount, in mg, of aspirin per Tablet. Dissolve in and dilute with *Solvent mixture* to volume, and mix.

Aspirin and *codeine phosphate standard preparation*—Transfer about 65 mg of USP Aspirin RS, accurately weighed, to a 10-mL volumetric flask. Add 5.0 mL of *Codeine phosphate stock standard solution,* 1.0 mL of *Salicylic acid stock standard solution,* and 1.0 mL of *Internal standard solution,* dilute with *Solvent mixture* to volume, and mix.

Assay preparation—Weigh and finely powder not fewer than 20 Tablets. Transfer an accurately weighed portion of the powder, equivalent to about 325 mg of aspirin, to a screw-capped, 120-mL bottle, add 5.0 mL of *Internal standard solution* and 45.0 mL of *Solvent mixture,* mix, and sonicate for 2 to 5 minutes. Centrifuge, and use a portion of the resultant clear solution as the *Assay preparation.* Use on the day prepared.

Chromatographic system (see *Chromatography* ⟨621⟩)—The liquid chromatograph is equipped with a 280-nm detector and a 3.9-mm × 30-cm column that contains 10-µm packing L1. The flow rate is about 2 mL per minute. Chromatograph replicate injections of the *Salicylic acid standard preparation* and the *Aspirin and codeine phosphate standard preparation,* and record the peak responses as directed for *Procedure:* the relative retention times for salicylic acid, aspirin, codeine, and phenacetin are about 0.3, 0.5, 0.8, and 1.0, respectively; the resolution, *R,* between salicylic acid and aspirin, between aspirin and codeine, and between codeine and phenacetin is not less than 2.0; the tailing factor for each analyte peak is not more than 2.0; and the relative standard deviation of the ratios of the peak responses of salicylic acid, aspirin, and codeine to the peak response of phenacetin is not more than 3.0%.

Procedure—Separately inject equal volumes (about 5 µL) of the *Salicylic acid standard preparation, Aspirin and codeine phosphate standard preparation,* and *Assay preparation* into the chromatograph, record the chromatograms, and measure the responses for the major peaks. Calculate the quantity, in mg, of aspirin ($C_9H_8O_4$) in the portion of Tablets taken by the formula:

$$50C(R_U / R_S)$$

in which *C* is the concentration, in mg per mL, of USP Aspirin RS in the *Aspirin and codeine phosphate standard preparation;* and R_U and R_S are the ratios of the peak responses of aspirin and phenacetin obtained from the *Assay preparation* and the *Aspirin and codeine phosphate standard preparation,* respectively. Calculate the quantity, in mg, of codeine phosphate hemihydrate ($C_{18}H_{21}NO_3 \cdot H_3PO_4 \cdot {}^1/_2H_2O$) in the portion of Tablets taken by the formula:

$$(406.37/397.37)(50C)(R_U / R_S)$$

in which 406.37 and 397.37 are the molecular weights of codeine phosphate hemihydrate and anhydrous codeine phosphate, respectively; *C* is the concentration, in mg per mL, of USP Codeine Phosphate RS in the *Aspirin and codeine phosphate standard preparation;* and R_U and R_S are the ratios of the peak responses of codeine phosphate and phenacetin obtained from the *Assay preparation* and the *Aspirin and codeine phosphate standard preparation,* respectively. Calculate the percentage of free salicylic acid in the Tablets taken by the formula:

$$5000(C / a)(R_U / R_S)$$

in which *C* is the concentration, in mg per mL, of USP Salicylic Acid RS in the *Salicylic acid standard preparation; a* is the quantity, in mg, of aspirin in the portion of powdered Tablets taken, based on the labeled amount; and R_U and R_S are the ratios of the peak responses of salicylic acid and phenacetin obtained from the *Assay preparation* and the *Salicylic acid standard preparation,* respectively: not more than 3.0% is found.

Aspirin, Codeine Phosphate, Alumina, and Magnesia Tablets

» Aspirin, Codeine Phosphate, Alumina, and Magnesia Tablets contain not less than 90.0 percent and not more than 110.0 percent of the labeled amounts of aspirin ($C_9H_8O_4$), codeine phosphate hemihydrate ($C_{18}H_{21}NO_3 \cdot H_3PO_4 \cdot {}^1/_2H_2O$), aluminum hydroxide [$Al(OH)_3$], and magnesium hydroxide [$Mg(OH)_2$].

Packaging and storage—Preserve in well-closed, light-resistant containers.

USP Reference standards ⟨11⟩—
USP Aspirin RS
USP Codeine Phosphate RS
USP Salicylic Acid RS

Identification—

A: Tablets respond to the *Identification* test under *Aspirin and Codeine Phosphate Tablets.*

B: Tablets respond to the *Identification* tests under *Alumina and Magnesia Tablets.*

Dissolution ⟨711⟩—

Medium: 0.05 M acetate buffer, prepared by mixing 2.99 g of sodium acetate trihydrate and 1.66 mL of glacial acetic acid with water to obtain 1000 mL of solution having a pH of 4.50 ± 0.05; 900 mL.

Apparatus 2: 75 rpm.

Time: 30 minutes.

Mobile phase, Internal standard solution, Solvent mixture, Aspirin and *codeine phosphate standard preparation, Standard solution A, Standard solution B, Standard preparations A* and *B, Test preparation, Chromatographic system,* and *Procedure*—Proceed as directed in the test for *Dissolution* under *Aspirin and Codeine Phosphate Tablets.*

Tolerances—Not less than 75% *(Q)* of the labeled amounts of aspirin ($C_9H_8O_4$) and codeine phosphate hemihydrate ($C_{18}H_{21}NO_3 \cdot H_3PO_4 \cdot {}^1/_2H_2O$) are dissolved in 30 minutes.

Uniformity of dosage units ⟨905⟩: meet the requirements for *Content Uniformity* with respect to aspirin and codeine phosphate and for *Weight Variation* with respect to aluminum hydroxide and magnesium hydroxide.

Acid-neutralizing capacity ⟨301⟩: not less than 1.9 mEq per Tablet.

Assay for aspirin and codeine phosphate and limit of free salicylic acid—

Mobile phase, Solvent mixture, Salicylic acid stock standard solution, Salicylic acid standard preparation, Aspirin and *codeine phosphate standard preparation,* and *Chromatographic system*—Prepare as directed in the *Assay for aspirin and codeine phosphate and limit of free salicylic acid* under *Aspirin and Codeine Phosphate Tablets.*