

A Rapid Titrimetric Extraction Method for Determination of "X" in Chicle Gum

Glassware and Reagents Pyrex glassware used throughout. Squibb type separatory funnels capacity 125 c.c. with a suitable adjustable rack to hold 12 funnels in 2 tiers, one directly above the other. A 50 c.c. burette graduated in 1/10 c.c. is required. Merck's Reagent chemicals are preferred. Concentrations are expressed on a volume per cent basis; thus, 5 per cent ammonium hydroxide contains 5 ml. of ammonium hydroxide (sp.gr. 0.90) in 100 ml. of solution.

Special reagents required:-

1. Ammonium citrate solution.

40 grams citric acid ($H_3C_6H_5O_7 \cdot H_2O$), are dissolved in 500 ml. of distilled water, the solution neutralized to litmus with ammonium hydroxide (sp.gr. 0.90) and finally diluted to 1 liter. A small amount of chloroform is added as a preservative.

2. Sodium chloride - hydrochloric acid solution.

5 per cent hydrochloric acid saturated with sodium chloride at room temperature.

3. Dithizone solution.

Dithizone solution purified according to the regular procedure, diluted and standardized so that 1 ml. is equivalent to 0.005 mgs. "X". This solution may be stabilized by adding 7 c.c. alcohol per liter of solution. Keep in dark bottle and out of direct light when not in use.

4. A solution of a salt of "X" either nitrate or acetate prepared by direct weighing and so diluted that 1 ml. is equivalent to 0.01 mgs. "X".

5. Sulphurous Acid - 6-7%.