(For the products "as received" and after the "Corrosion Test").

Procedure:

1. Place 100 ml. of benzene, 100 ml. of Methanol (measure both by a graduate), and 0.5 ml. (by pipette) of Phenol Red indicator into one of two clean, dry 500-ml. Erlenmeyer flasks.

2. Neutralize carefully with the 0.01 N KOH (to the first definite pink color).

3. Pour the mixture back and forth between the two flasks several times. If the solution is still neutral, divide it equally between the two flasks, if not repeat Steps 2 and 3.

4. Weigh on a beam balance into one of the flasks a 75 (± 5.0) g. sample of the material under test.

5. Titrate with 0.01 N KOH until the sample matches the blank (second 500-ml. flask).

NOTE: For Aroclors 1270 and 1271, toluene is used as the solvent and 300 to 400 ml. is required in order to dissolve the sample. Also the sample shall be reduced to 10 (± 0.05) grams.

Date: 3/11/53 Material: Distilled Aroclors, Method No. 10,087-53
By: DKL, Pyranols, Inerteens, and Tri-Tetra- W.G.K. Dept. No. 233/246
NPA:SMK chlorobenzene Blend

Calculation:

Acid Number (Acidity of G. E. Specifications) =

$$\text{mg. KOH/gram sample} = \frac{\text{ml. 0.01 N KOH} \times 0.56}{\text{Sample Weight}}$$

To convert mg. KOH/gram to mg. NaOH/gram (on request only)

$$\text{mg. NaOH/gram} = (\text{mg. KOH/gram}) \times 0.715$$

The method is precise to ± 0.002 for acid numbers below 0.01 and to + 0.01 in the range of 0.1 to 0.01.

Report the results to the nearest 0.001 if they are below 0.1, otherwise to the nearest 0.01.

DSW 551040

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Reagents:

1. Benzene - Nitration Grade: This may be secured from reserve samples of benzene which have been analyzed for Depts. 223 and 233.

2. Methanol - Anhydrous

3. Phenol Red: A saturated solution of phenol sulfonphthalein (Phenol Red) in methanol (approx. 0.1%).

4. A 0.01 N KOH solution in methanol: This solution is prepared by the Service Section (see "Procedure Manual for the Service Section", Part 2, page 6).

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