DIPHENYL IN CRUDE DIPHENYL OR DIPHENYL STILL BOTTOMS

Procedure

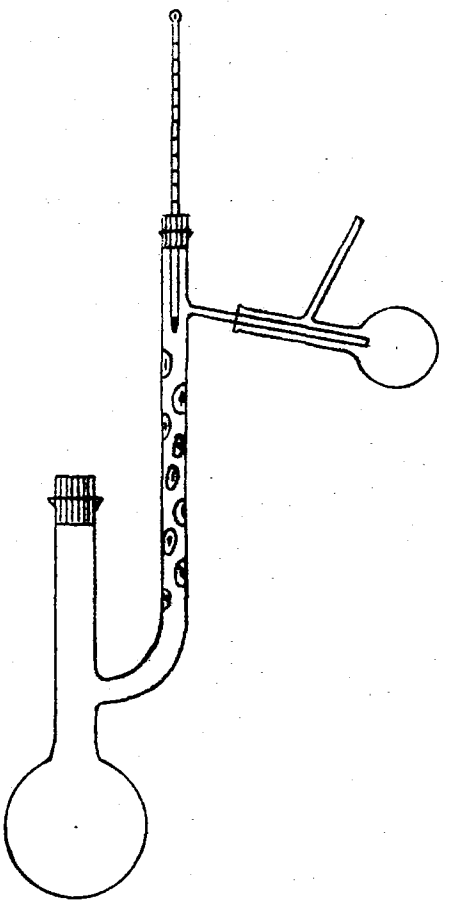
Transfer 100 to 200 grams of the sample to a 250 cc beaker. Weigh beaker and contents on a rough balance to nearest gram. Warm beaker until contents are liquid then pour 100 to 150 grams into a 250 cc distilling flask with 10 inch distilling column attached. Reweigh beaker and contents, thereby obtaining by difference the weight of sample used.

Place a 300°C or 400°C thermometer in the top of the 10 inch distilling column in such a way that the top of the bulb is even with the bottom of the side neck outlet. Distill off the diphenyl and collect in a weighed receiving flask until the thermometer reads 275°C. Weigh the receiving flask again and calculate results.

$$\% \text{ diphenyl} = \frac{\text{wt. diphenyl} \times 100}{\text{wt. of sample}}$$

Pour the residue in the flask while still liquid into a casserole or pan kept for this purpose. Rinse with benzol and allow to dry.

Apparatus



The distilling flask is a 250 cc flask to which a 10 inch column with side outlet near top is attached. The column has indentations to increase surface area. Asbestos paper should be wrapped around the column.

A Meker burner is used in heating the flask. Since a high boiling point must be reached, the transite board or wire gauge on which the flask rests should have a hole nearly as large as the diameter of the flask. The flame may also be applied directly to the flask without the use of any transite board or wire gauge. If necessary, asbestos paper should be placed at the top of the flask.

A 100 cc distilling flask makes a convenient receiver for the distillate.

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