DIRECTIONS FOR TEST NO. 14-52-45

SUBJECT: Water Content of Attapulgus Earth

METHOD: Titration with Karl Fischer Reagent

Reagents and Apparatus

The preparation and calibration of the Karl Fischer reagent is described under Test No. 14-39-41, Water Content of Liquid Aroclors. No changes in apparatus are necessary.

Procedure

To a dry 250 cc. erlenmeyer, add 10 cc. of anhydrous methanol and titrate to the brown end point with Fischer reagent. Add 0.2 to 0.5 gm., accurately weighed, of the Attapulgus earth. Titrate slowly with Fischer reagent while shaking the suspension vigorously. Make determinations in duplicate, observing precautions described under Test No. 14-39-41. The water content is calculated from the second titration.

Example. 0.5 gram of Attapulgus earth requires 6.1, check 6.0 cc. of Fischer reagent, 1 cc. of which is equivalent to .00330 g. of water.

$$\frac{6.05 \times .00330}{0.5} \times 100 = 3.97\% \text{ water}$$

Check runs can be duplicated to 2% of the water content.

Reference

J. R. Durland and W.P. Metzner, Plant B Analytical Methods, dated 2-18-41.

FAB:cm
1-26-45

DSW 330791

STLCOPCB4077435