Introduction:

The flash and fire (burn) point of Aroclors, Pyranols, Inerteens, and Tri-Tetrachlorobenzene Blend shall be determined in the Cleveland Open Cup Tester, following the procedure (ASTM Designation D92-46) described in 1949 Book of ASTM Standards, part 5, p. 716-718.

For our purposes, however, it is not usually necessary to make the complete test (Complete Procedure) as given below (A). On routine samples of Pyranols 1476 and 1482 merely use the abbreviated test (Abbreviated Procedure) for Fire (Burn) Point described under (B) at the end of the method.

A. Complete Procedure:

1. Fill the cup to about 3/8" from the top with the sample.

2. Insert a 20 - 760°F. range ASTM Open Flash (1 inch immersion) thermometer so that the bulb is 1/4" off the bottom and midway between the center and the back edge.

3. Adjust the flame so that the rise of the sample's temperature will be at the rate of 9 - 11°F. per minute.

Date: 3/10/53 Material: Aroclors, Pyranols, Inerteens, and Tri-Tetrachloro-benzene Blends Method No. 10,123-53
By: AEB, NPA:SMK W.G.K. Dept. No. 246/233

4. Adjust the testing flame so that it will be produced through a blow-pipe with an opening 1/32". This flame should be only a bead 5/32" in diameter.

CAUTION: The test should be carried out under a hood where there are no drafts. This is very important as is the rate of temperature rise.

5. When visible vapors start to rise from the product under the heat, carry across the surface of material the small bead flame (Step 4). The test flame should never be allowed to get any lower than a height of the top rim of the cup.

6. Carry the flame directly across the product, as in Step 5, every five degrees Fahrenheit until the rising vapors flash back to the material under the test.

7. Record the temperature at this time as the Flash Point.

8. Continue to pass the flame bead across the sample (Step 5) every five degrees Fahrenheit until the vapors flash down to the material and continue to burn for at least 5 seconds.

9. Record this temperature as the Fire (Burn) Point.

NOTE: Always read the temperature before testing as the flash tends to increase the temperature.

10. Convert the reading to centrigrade units.

Report the Flash and Fire (Burn) Points to the nearest 1°C.

B. Abbreviated Procedure:

1. Fill the cup with the sample to within 3/8" of the top and heat to boiling under a well ventilated hood.
2. As the material comes to a boil pass a test flame (see Step 4, Complete Procedure) across the top of the cup (Step 5, Complete Procedure).
3. Note if the sample burns for five seconds or more.
4. If the material does not burn for 5 seconds, report the Fire (Burn) Point as > B.P. (above boiling point).
5. If a positive result (the sample burns for 5 seconds or more)

was obtained, a test for Flash and Fire (Burn) Point should be run on the same material using the procedure described above under "Complete Procedure".

DSW 551105

STLCOPCB4089522