

COMPONENTS: (1) 7-Pentylbenz[a]anthracene; $C_{23}H_{22}$; [63019-00-1] (2) Water; H_2O ; [7732-18-5]	ORIGINAL MEASUREMENTS: Davis, W.W.; Krahl, M.E.; Cloves, G.H.A. <i>J. Am. Chem. Soc.</i> <u>1942</u> , <i>64</i> , 108-10.								
VARIABLES: One temperature: 27°C	PREPARED BY: M.C. Haulait-Pirson								
EXPERIMENTAL VALUES: <p style="text-align: center;">Solubility of 10-pentylbenz[a]anthracene in water</p> <table style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;">$t/^\circ C$</th> <th style="text-align: center;">$10^7 \text{ g(1) L}^{-1} \text{ (2)}$</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">27</td> <td style="text-align: center;">9 ± 1</td> </tr> <tr> <td></td> <td style="text-align: center;">8 ± 3</td> </tr> <tr> <td></td> <td style="text-align: center;">8 ± 2</td> </tr> </tbody> </table> <p>The best value recommended by the authors is $8 \times 10^{-7} \text{ g(1) L}^{-1} \text{ (2)}$. With the assumption that 1.00 L sln = 1.00 kg sln, the corresponding mass percent and mole fraction, x_1, calculated by the compiler are $8 \times 10^{-8} \text{ g(1)/100 g sln}$ and 5×10^{-11}.</p>		$t/^\circ C$	$10^7 \text{ g(1) L}^{-1} \text{ (2)}$	27	9 ± 1		8 ± 3		8 ± 2
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AUXILIARY INFORMATION									
METHOD/APPARATUS/PROCEDURE: The method consisted of preparing serial dilutions of a suspension of (1) in (2) and determining nephelometrically the amount of (1) per unit volume beyond which further dilution caused no reduction in light scattering, which remained equal to that of pure (2). A Bausch and Lomb Dubosque colorimeter model 100-mm was employed. Many details are reported in ref 1.	SOURCE AND PURITY OF MATERIALS: (1) prepared at Harvard University; m.p. range 82.6-83.3°C (cf. ref 2). (2) dust-free. ESTIMATED ERROR: temp. ± 3°C soly. see above REFERENCES: 1. Davis, W.W.; Parker, Jr., T.V. <i>J. Am. Chem. Soc.</i> <u>1942</u> , <i>64</i> , 101. 2. Davis, W.W.; Krahl, M.E.; Cloves, G.H.A. <i>J. Am. Chem. Soc.</i> <u>1940</u> , <i>62</i> , 3086.								