

COMPONENTS: (1) 5-Methylchrysene; C ₁₉ H ₁₄ ; [3697-24-3] (2) Water; H ₂ O; [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 5-methylchrysene in water</p> <table style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;"><u>t/°C</u></th> <th style="text-align: center;"><u>10⁵ g(1) L⁻¹ (2)</u></th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">27</td> <td style="text-align: center;">6.5 ± 0.5</td> </tr> <tr> <td></td> <td style="text-align: center;">6.5 ± 0.5</td> </tr> <tr> <td></td> <td style="text-align: center;">5.8 ± 0.5</td> </tr> <tr> <td></td> <td style="text-align: center;">5.5 ± 0.5</td> </tr> <tr> <td></td> <td style="text-align: center;">6.1 ± 0.3</td> </tr> <tr> <td></td> <td style="text-align: center;">6.2 ± 0.3</td> </tr> </tbody> </table> <hr style="width: 20%; margin: 10px auto;"/> <p>The best value recommended by the authors is 6.2 x 10⁻⁵ g(1) L⁻¹ (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 6.2 x 10⁻⁶ g(1)/100 g sln and 4.6 x 10⁻⁹.</p>		<u>t/°C</u>	<u>10⁵ g(1) L⁻¹ (2)</u>	27	6.5 ± 0.5		6.5 ± 0.5		5.8 ± 0.5		5.5 ± 0.5		6.1 ± 0.3		6.2 ± 0.3
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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 the Ohio State University; m.p. range 117.3-117.7°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>1940</i> , <i>62</i> , 3086.														