

COMPONENTS: (1) 1-Decene; $C_{10}H_{20}$; [872-05-9] (2) Water; H_2O ; [7732-18-5]	ORIGINAL MEASUREMENTS: Natarajan, G.S.; Venkatachalam, K.A. <i>J. Chem. Eng. Data.</i> <u>1972</u> , <i>17</i> , 328-9.																
VARIABLES: Temperature: 15-25°C	PREPARED BY: M.C. Haulait-Pirson and G.T. Hefter																
EXPERIMENTAL VALUES: <p style="text-align: center;">Solubility of 1-decene in 0.001 mol/L HNO_3 sln.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">$t/^\circ C$</th> <th style="text-align: center;">10^5 mol/L sln^a g(l)/100 g sln</th> <th style="text-align: center;">10^3 g(l)/100 g sln^b (compiler)</th> <th style="text-align: center;">10^6 x_1 (compiler)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">15</td> <td style="text-align: center;">8.2</td> <td style="text-align: center;">1.1</td> <td style="text-align: center;">1.5</td> </tr> <tr> <td style="text-align: center;">20</td> <td style="text-align: center;">6.1</td> <td style="text-align: center;">0.85</td> <td style="text-align: center;">1.1</td> </tr> <tr> <td style="text-align: center;">25</td> <td style="text-align: center;">4.1</td> <td style="text-align: center;">0.57</td> <td style="text-align: center;">0.73</td> </tr> </tbody> </table> <p>^a Uncertainties stated to be "standard deviations from mean". ^b Assuming a solution density of 1.00 g mL^{-1} at all temperatures.</p> <p><u>Compilers' note:</u> Although the data have not been measured in pure water the low concentration of the added acid is unlikely to cause the olefin solubility to differ markedly from that in pure water. Further solubility data are given in the paper for 0.05 and 0.1 mol/L HCl.</p>		$t/^\circ C$	10^5 mol/L sln ^a g(l)/100 g sln	10^3 g(l)/100 g sln ^b (compiler)	10^6 x_1 (compiler)	15	8.2	1.1	1.5	20	6.1	0.85	1.1	25	4.1	0.57	0.73
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AUXILIARY INFORMATION																	
METHOD/APPARATUS/PROCEDURE: 15 mL of the aqueous medium was equilibrated with 1 mL of (1) by mechanical shaking in a thermostatted glass burette. After settling (judged) visually, 5 mL of the aqueous layer was withdrawn and the olefin content determined by titration with bromine using standard procedures.	SOURCE AND PURITY OF MATERIALS: (1) BDH: 99% (2) Not specified. ESTIMATED ERROR: Temp. ± 0.05 K Soly. see Table above. REFERENCES:																