

COMPONENTS: (1) Cyclooctane; C ₈ H ₁₆ ; [292-64-8] (2) Water; H ₂ O; [7732-18-5]	ORIGINAL MEASUREMENTS: McAuliffe, C. <i>J. Phys. Chem.</i> <u>1966</u> , <i>70</i> , 1267-75.
VARIABLES: One temperature: 25°C	PREPARED BY: M.C. Haulait-Pirson
EXPERIMENTAL VALUES: <p>The solubility of cyclooctane in water at 25°C was reported to be 7.9 mg (1)/kg sln.</p> <p>The corresponding mole fraction, x_1, calculated by the compiler, is 1.27×10^{-6}.</p> <p>The same value is also reported in ref 1.</p>	
AUXILIARY INFORMATION	
METHOD/APPARATUS/PROCEDURE: <p>In a 250 mL glass bottle, 10-20 mL of (1) was vigorously shaken for 1 hr or magnetically stirred for 1 day, with 200 mL of (2) at 25°C. In the case of shaking, the solution was allowed to stand for 2 days to permit separation of small (1) droplets. Absence of emulsion was checked microscopically. A 50 μL sample of the (1) saturated water was withdrawn with a Hamilton Syringe and injected into the fractionator of the gas chromatograph. A hydrogen-flame ionization detector was used. Many details are given in the paper.</p>	SOURCE AND PURITY OF MATERIALS: (1) Phillips Petroleum Co.; 99+% purity; used as received. (2) distilled.
ESTIMATED ERROR: temp. $\pm 1.5^\circ\text{C}$ soly. 1.8 mg (1)/kg sln (standard deviation from mean)	
REFERENCES: 1. McAuliffe, C. <i>Am. Chem. Soc. Div. Petrol. Chem.</i> <u>1964</u> , <i>9</i> , 275.	