

COMPONENTS: (1) 1,1,3-Trimethylcyclohexane; C_9H_{18} ; [3073-66-3] (2) Water; H_2O ; [7732-18-5]	ORIGINAL MEASUREMENTS: Price, L.C. <i>Am. Assoc. Petrol. Geol. Bull.</i> <u>1976</u> , 60, 213-44.
VARIABLES: One temperature: 25°C	PREPARED BY: M.C. Haulait-Pirson
EXPERIMENTAL VALUES: The solubility of 1,1,3-trimethylcyclohexane in water at 25°C and at system pressure was reported to be 1.77 mg(1)/kg(2). The corresponding mass percent and mole fraction, x_1 , calculated by the compiler are 1.77×10^{-4} g(1)/100 g sln and 2.53×10^{-7} .	
AUXILIARY INFORMATION	
METHOD/APPARATUS/PROCEDURE: The solubility was determined at laboratory temperatures by use of screw-cap test tubes. The (1) phase floated on top of the water and insured saturation of the (2) phase in 2 to 4 days. Analyses were carried out by GLC using a Hewlett-Packard model 5751 gas chromatograph with dual-flame ionization detectors. Many details are given in the paper.	SOURCE AND PURITY OF MATERIALS: (1) Phillips Petroleum Company; Chemical Samples Company or Aldrich Chemical Company; 99+%. (2) distilled. ESTIMATED ERROR: temp. $\pm 1^\circ C$ soly. ± 0.05 mg(1)/kg(2) REFERENCES:

COMPONENTS: (1) 1,1,3-Trimethylcyclohexane; C_9H_{18} ; [3073-66-3] (2) Water; H_2O ; [7732-18-5]	ORIGINAL MEASUREMENTS: Krzyzanowska, T.; Szeliga, J. <i>Nafta (Katowice)</i> , <u>1978</u> , <i>12</i> , 413-7.
VARIABLES: One temperature: 25°C	PREPARED BY: M.C. Haulait-Pirson
EXPERIMENTAL VALUES: <p>The solubility of 1,1,3-trimethylcyclohexane in water at 25°C was reported to be 0.115 mg(1)/kg(2).</p> <p>The corresponding mass percent and mole fraction, x_1, calculated by compiler are 1.15×10^{-5} g(1)/100 g sln and 1.64×10^{-8}.</p> <p>Editor's Note: Based on the results for this and other hydrocarbon-water systems, uncertainty exists about whether the datum compiled here is independent of that of Price for the same system (see previous page). Consequently, this system has not been evaluated.</p>	
AUXILIARY INFORMATION	
METHOD/APPARATUS/PROCEDURE: <p>The saturated solutions of (1) in (2) were prepared in two ways. First, 200 μL of (1) was injected into 20 mL of (2) and thermostatted at 25°C. Second, the mixture of (1) and (2) as above was thermostatted at 70°C and then cooled to 25°C. The time required to obtain equilibrium was three weeks. The solubility of (1) in (2) was measured by glc. A Perkin-Elmer model F-11 gas chromatograph equipped with a 100-150 mesh Porasil column (70°C) and a flame ionization detector was used. Saturated solutions of heptane in (2) were used as standard solutions.</p>	SOURCE AND PURITY OF MATERIALS: (1) not specified. (2) not specified. ESTIMATED ERROR: soly. 0.02 mg(1)/kg(2) (standard deviation from 7-9 determinations). REFERENCES: