

<b>COMPONENTS:</b>  (1) 1,8-Nonadiyne; C <sub>9</sub> H <sub>12</sub> ; [2396-65-8]  (2) Water; H <sub>2</sub> O; [7732-18-5]	<b>ORIGINAL MEASUREMENTS:</b>  McAuliffe, C.  <i>J. Phys. Chem.</i> <u>1966</u> , <i>70</i> , 1267-75.
<b>VARIABLES:</b>  One temperature: 25°C	<b>PREPARED BY:</b>  A. Maczynski, Z. Maczynska, and A. Szafranski
<b>EXPERIMENTAL VALUES:</b>  The solubility of 1,8-nonadiyne in water at 25°C was reported to be 125 g(1)/10 <sup>6</sup> g(2). The corresponding mass percent and mole fraction, $x_1$ , calculated by the compilers are 0.0125 g(1)/100 g sln and $1.9 \times 10^{-5}$ .	
<b>AUXILIARY INFORMATION</b>	
<b>METHOD/APPARATUS/PROCEDURE:</b>  In a 250-mL 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. The bottle was set aside for 2 days to allow droplets of undissolved (1) to separate. Absence of emulsion was checked microscopically. A sample of the hydrocarbon-saturated water was withdrawn with a Hamilton syringe and gas liquid chromatographed in conjunction with a flame-ionization detector.	<b>SOURCE AND PURITY OF MATERIALS:</b>  (1) Phillips Petroleum or Columbia Chemical; used as received.  (2) distilled.  <b>ESTIMATED ERROR:</b> temp. $\pm 1.5^\circ\text{C}$ soly. 3 g(1)/10 <sup>6</sup> g(2) (standard deviation of mean)  <b>REFERENCES:</b>