COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Eicosane; $C_{20}H_{42}$; [112-95-8] (2) Water; H_2O; [7732-18-5]	Sutton, C.; Calder, J.A. *Environ. Sci. Technol.* 1974, *8*, 654-7.
VARIABLES:	**PREPARED BY:**
One temperature: 25°C	M.C. Haulait-Pirson

EXPERIMENTAL VALUES:

The solubility of eicosane in water at 25°C was reported to be 1.9×10^{-7} g(1)/100 g(2) corresponding to a mole fraction x_1, of 1.1×10^{-10}.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
175 mg (1) were equilibrated with 700 mL (2) in closed flasks by shaking on a constant temperature bath for 12 hours. The flasks were then allowed to stand for 24 hours. Aliquots of 100 mL were removed, filtered through a 0.45 μm Millipore filter, then extracted three times with 10-mL portions of hexane containing an internal standard. The concentration of (1) was determined by injection of the hexane extract into a dual column gas chromatograph equipped with flame ionization detectors.	(1) Analabs Inc., 99+%. (2) doubly distilled.
	ESTIMATED ERROR: temp. ± 0.1°C soly. ± 16%
	REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Eicosane; $C_{20}H_{42}$; [112-95-8] (2) Seawater	Sutton, C.; Calder, J.A. *Environ. Sci. Technol.* 1974, *8*, 654-7.
VARIABLES: One temperature: 25°C One salinity: 35 g salts/kg sln	**PREPARED BY:** P.A. Meyers and D. Shaw

EXPERIMENTAL VALUES:

The solubility of eicosane in seawater was reported to be 8×10^{-8} g(1)/100 g sln and $x_1 = 5 \times 10^{-11}$.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

(1) and (2) were placed in a glass stoppered flask fitted with a Teflon stopcock near the bottom. The components were equilibrated by gentle shaking for 12 hrs at 25.0 ± 0.1°C The mixture was then allowed to stand for 24 hrs. Samples removed via the stopcock were filtered with suction through 0.45 μm membrane filters to remove any hydrocarbon droplets. The filtrate was extracted three times with hexane and analyzed by gas chromatography.

SOURCE AND PURITY OF MATERIALS:

Analabs, Inc., North Haven, Conn. 99 + % pure hydrocarbons.

Seawater collected from 25 m depth in Gulf of Mexico, poisoned with $HgCl_2$ sln to prevent bacterial growth, and filtered through Gelman glass fiber filter. Natural n-alkane levels too low to cause interference.

ESTIMATED ERROR: Eight replications were made. The average of the deviations of the mean gave an experimental error of ± 16%, yet some accommodation may have occurred due to presence of natural dissolved organic matter.

REFERENCES: