COMPONENTS:	EVALUATOR:
(1) Indan; C_9H_{10}; [496-11-7]	G.T. Hefter, School of Mathematical and Physical Sciences, Murdoch University, Perth, W.A., Australia. A. Maczynski, Institute of Physical Chemistry, Polish Academy of Sciences, Warszawa, Poland.
(2) Water; H_2O; [7732-18-5]	February 1986.

CRITICAL EVALUATION:

Quantitative solubility studies for indan (1) in water (2) have been reported in the publications listed in Table 1.

TABLE 1. Quantitative Solubility Studies of Indan (1) in Water (2)

Reference	T/K	Method
Price (ref 1)	298	GLC
Mackay and Shiu (ref 2)	298	spectrofluorometric

The original data in these publications are compiled in the Data Sheets immediately following this evaluation. No data have been reported on the solubility of water in indan.

The data of Price (ref 1) and Mackay and Shiu (ref 2) are in good agreement (Table 2) although the relative uncertainty (± 10%) is too large for the mean to be Recommended given the relatively high solubility. Further studies are required.

TABLE 2: Tentative Value of the Solubility of Indan (1) in Water (2)

T/K	Solubility value		
	Reported value 10^2g(1)/100g sln	"Best" value ($\pm\sigma_n$) 10^2g(1)/100g sln	$10^5\ x_1$
298	0.889 (ref 1), 1.091 (ref 2)	1.0 ± 0.1	1.5

REFERENCES

1. Price, L.C. *Am. Assoc. Petrol. Geol. Bull.* 1976, *60*, 213-44.

2. Mackay, D.; Shiu, W.Y. *J. Chem. Eng. Data* 1977, *22*, 399-402.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Indan; C_9H_{10}; [496-11-7] (2) Water; H_2O; [7732-18-5]	Price, L.C. *Am. Assoc. Petrol. Geol. Bull.* 1976, *60*, 213-44.
VARIABLES:	**PREPARED BY:**
One temperature: 25°C	M.C. Haulait-Pirson

EXPERIMENTAL VALUES:

The solubility of indan in water at 25°C and at system pressure was reported to be 88.9 mg(1)/kg(2). The corresponding mass percent and mole fraction, x_1, calculated by the compiler are 0.00889 g(1)/100 g sln and 1.35 x 10^{-5}.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
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.	(1) Phillips Petroleum Company; Chemical Samples Company or Aldrich Chemical Company; 99+%. (2) distilled.
	ESTIMATED ERROR: temp. ± 1°C soly. ± 2.7 mg(1)/kg(2)
	REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Indan; C_9H_{10}; [496-11-7] (2) Water; H_2O; [7732-18-5]	Mackay, D.; Shiu, W.Y. *J. Chem. Eng. Data* 1977, *22*, 399-402.
VARIABLES:	**PREPARED BY:**
One temperature: 25°C	M.C. Haulait-Pirson

EXPERIMENTAL VALUES:

The solubility of indan in water at 25°C was reported to be 109.1 mg(1) dm^{-3} sln and $x_1 = 1.665 \times 10^{-5}$.

The corresponding mass percent calculated by the compiler is 0.01091 g(1)/100 g sln.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
A saturated solution of (1) in (2) was vigorously stirred in a 250 mL flask for 24 hrs. and subsequently settled at 25°C for at least 48 hrs. Then the saturated solution was decanted and filtered and 50-100 mL extracted with approximately 5 mL of cyclohexane in a separatory funnel. After shaking for 2 hrs. the cyclohexane extract was removed for analysis. An Aminco-Browman spectrophotofluorometer (American Instruments Ltd.) was used for analysis. Many details are given in the paper.	(1) Aldrich Chemicals, Eastman Kodak, or K and K Laboratories, commercial highest grade; used as received. (2) doubly distilled.
	ESTIMATED ERROR: soly. ± 1.02 mg(1) dm^{-3} sln (maximum deviation from several determinations).
	REFERENCES: