

# Diffusion coefficient of water in pentan-1-ol

## 3 Diffusion in Liquid Mixtures

### 3.1. Data

#### 3.1.1. Diffusion in Binary Mixtures

H <sub>2</sub> O	(1)	water	7732-18-5
C <sub>5</sub> H <sub>12</sub> O	(2)	pentan-1-ol	71-41-0
Mutual Diffusion Coefficient: $D_{12}(c_i)$ ; $T = 298.15$ K; Method: TAYLOR			Ref.: [1996H1]
$c_2$ [mol/dm <sup>3</sup> ]	$p$ [kPa]	$D \cdot 10^9$ [m <sup>2</sup> /s]	
0.000	101.32	0.888*	
0.025	101.32	0.875 ± 0.5%	
0.050	101.32	0.875 ± 0.5%	
0.100	101.32	0.852 ± 0.5%	
Comment: *: extrapolated			

### Symbols and Abbreviations

Short Form	Full Form
$D$	diffusion coefficient
$p$	pressure
$T$	temperature
TAYLOR	Taylor dispersion technique
$c_i$	molarity

### References

[1996H1] Hao, L., Leaist, D. G.: J. Chem. Eng. Data **41** (1996) 210–213.