

# Diffusion coefficient of propan-2-one in hexane at infinite dilution

## 3 Diffusion in Liquid Mixtures

### 3.1. Data

#### 3.1.2. Diffusion in Binary Mixtures at Infinite Dilution

C <sub>3</sub> H <sub>6</sub> O	(1)	propan-2-one	67-64-1
C <sub>6</sub> H <sub>14</sub>	(2)	hexane	110-54-3
Diffusion Coefficient at infinite dilution: $p = 16.0$ MPa; Method: TAYLOR			Ref.: [1994F2]
$T$ [K]	Type	$D \cdot 10^9$ [m <sup>2</sup> /s]	
303.2	$D_{1(2)}^0$	4.46	
313.2	$D_{1(2)}^0$	5.29	
313.2	$D_{1(2)}^0$	4.95*	
323.2	$D_{1(2)}^0$	5.88	
333.2	$D_{1(2)}^0$	6.23	
Comment: *: $p = 25.0$ MPa			
Diffusion Coefficient at infinite dilution: $p = 101.325$ kPa; Method: MZ-INT			Ref.: [1969B8]
$T$ [K]	Type	$D \cdot 10^9$ [m <sup>2</sup> /s]	
298.15	$D_{1(2)}^0$	$5.26 \pm 1\%$	
Comment: data of low reliability; a factor of $10^{-5}$ is missing in dimension of $D$			

## Symbols and Abbreviations

Short Form	Full Form
$D$	diffusion coefficient
$p$	pressure
$T$	temperature
TAYLOR	Taylor dispersion technique
INT	interferometry

## References

- [1969B8] Bidlack, D. L., Kett, T. K., Kelly, C. M., Anderson, D. K.: J. Chem. Eng. Data **14** (1969) 342–343.  
 [1994F2] Funazukuri, T., Nishimoto, N., Wakao, N.: J. Chem. Eng. Data **39** (1994) 911–915.