

Contents

1	Introduction	1
1.1	Basic Concepts	1
1.2	Scope of the Compilation	2
1.3	Description of Data Tables	3
1.4	Evaluation, Selection and Smoothing of Data	3
1.4.1	Assignment of Uncertainties	3
1.4.2	Quantitative Effect of Impurity on Density of Liquids	4
1.4.3	Procedure for Selection and Smoothing of Density Values - Case 1	5
1.4.4	Procedure for Selection and Smoothing of Density Values - Case 2	7
1.4.5	Procedure for Selection and Smoothing of Density Values - Case 3	7
1.5	Calculation Procedures	7
1.5.1	Least Squares Calculation	7
1.5.2	Selection of Data Based on Estimated Uncertainties	7
1.5.3	Count of the Effective Number of Density Values in a Set	8
1.5.4	Testing a Set of Deviations between Observed and Calculated Density Values for a Random Distribution	8
1.6	Glossary of Symbols	9
1.7	Order of Compounds in the Tables	10
	References	10
2	Tabulated Data on Density - Esters	11
2.1	Saturated Monoesters	11
2.1.1	Saturated Monoesters, $C_2 - C_5$	11
2.1.2	Saturated Monoesters, C_6	39
2.1.3	Saturated Monoesters, C_7	57
2.1.4	Saturated Monoesters, C_8	79
2.1.5	Saturated Monoesters, C_9	99
2.1.6	Saturated Monoesters, C_{10}	121
2.1.7	Saturated Monoesters, $C_{11} - C_{12}$	145
2.1.8	Saturated Monoesters, $C_{13} - C_{15}$	177
2.1.9	Saturated Monoesters, $C_{16} - C_{18}$	211
2.1.10	Saturated Monoesters, $C_{19} - C_{28}$	239
2.2	Unsaturated Monoesters of General Formula $C_nH_{2n-2}O_2$	261
2.3	Unsaturated Monoesters of General Formula $C_nH_{2n-4}O_2$	273
2.4	Diesters	277
3	Tabulated Data on Density - Ethers	311
3.1	Saturated Monoethers	311
3.1.1	Saturated Monoethers, $C_2 - C_6$	311
3.1.2	Saturated Monoethers, $C_7 - C_9$	339
3.1.3	Saturated Monoethers, $C_{10} - C_{12}$	369
3.1.4	Saturated Monoethers, $C_{13} - C_{22}$	395
3.2	Unsaturated Monoethers of General Formula $C_nH_{2n}O$	409
3.3	Unsaturated Monoethers of General Formula $C_nH_{2n-2}O$	415
3.4	Diethers	417
3.5	Triethers	435

References	441
Chemical Name Index	459
Chemical Abstracts Service Registry Number (CASRN) Index	481

<http://www.springer.com/978-3-540-41035-5>

Densities of Esters and Ethers

Frenkel, M.; Hong, X.; Wilhoit, R.C.; Hall, K.R. - Hall, K.R.;
Marsh, K.N. (Eds.)

2001, XI, 485 p. With CD-ROM., Hardcover

ISBN: 978-3-540-41035-5