

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 upon Estimated Uncertainties	8
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	Compound Nomenclature	10
1.7.1	Order of Compounds in the Tables	10
1.7.2	Names of Compounds Used in the Tables	11
	References for 1	17
2	Tabulated Data on Density - Rings Attached to Carbon Chain	19
2.1	Saturated Compounds with Alicyclic Rings	19
2.1.1	Saturated Compounds with Alicyclic Rings, C ₇ - C ₁₉	19
2.1.2	Saturated Compounds with Alicyclic Rings, C ₂₀ - C ₃₀	45
2.2	Unsaturated Compounds with Alicyclic Rings	65
2.3	Alicyclic and Phenyl Rings	73
2.4	Phenyl Groups on Saturated Carbon Chains	91
2.4.1	Phenyl Groups on Saturated Carbon Chains, C ₁₃ - C ₁₈	91
2.4.2	Phenyl Groups on Saturated Carbon Chains, C ₁₉ - C ₃₅	115
2.5	Phenyl Groups on Unsaturated Carbon Chains	135
3	Tabulated Data on Density - Direct Bonding Between Rings	157
3.1	Saturated Alicyclic Rings	157
3.2	Unsaturated Alicyclic Rings and Side Chains	175
3.3	Cycloalkyl Benzenes	177
3.4	Polyphenyls	193
4	Tabulated Data on Density - Spiroalkanes and Spiroalkenes	209
4.1	Saturated Compounds	209
4.2	Unsaturated Compounds	219

5	Tabulated Data on Density - Condensed Ring System	221
5.1	Saturated Bridged Cycloalkanes	221
5.1.1	Saturated Bridged Cycloalkanes, C ₆ - C ₁₁	221
5.1.2	Saturated Bridged Cycloalkanes, C ₁₂ - C ₁₉	247
5.1.3	Saturated Bridged Cycloalkanes, C ₂₀ - C ₃₂	271
5.2	Unsaturated Bridged Cycloalkanes	295
5.2.1	Unsaturated Bridged Cycloalkanes, C ₇ - C ₁₁	295
5.2.2	Unsaturated Bridged Cycloalkanes, C ₁₁ - C ₁₄	323
5.2.3	Unsaturated Bridged Cycloalkanes, C ₁₅ - C ₁₇	347
5.2.4	Unsaturated Bridged Cycloalkanes, C ₁₈ - C ₃₆	371
5.3	Condensed Polycyclic Aromatic Compounds	393
5.3.1	Condensed Polycyclic Aromatic Compounds, C ₁₀ - C ₁₅	393
5.3.2	Condensed Polycyclic Aromatic Compounds, C ₁₆ - C ₃₈	425
5.4	Phenyl Groups Attached to Condensed Polycyclic Aromatic Compounds	453
6	Tabulated Data on Density - Miscellaneous Polycyclic Hydrocarbons	461
	References	471
	Chemical Name Index	515
	Chemical Abstracts Service Registry Number (CASRN) Index	533