

**J. Gmehling  
U. Onken**

# **VAPOR-LIQUID EQUILIBRIUM DATA COLLECTION**

**Organic Hydroxy Compounds:  
C<sub>5+</sub>-Alcohols and Phenols  
(Supplement 10)**

## **Chemistry Data Series**

**Vol I, Part 2m (in conjunction with Part 2I)**

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**DECHEMA**

# Vapor-Liquid Equilibrium Data Collection

## 2 m

**Organic Hydroxy Compounds:  
C<sub>5+</sub>-Alcohols and Phenols (Supplement 10)**

Tables and diagrams of data for binary and multicomponent mixtures up to moderate pressures. Constants of correlation equations for computer use.

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Technische Chemie  
Universität Oldenburg

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## 2 m

### Organic Hydroxy Compounds: C<sub>5+</sub>-Alcohols and Phenols (Supplement 10)

(+)-2-Hexanol  
1-Hexanol  
2-Methyl-1-pentanol  
4-Methyl-1-pentanol  
4-Methyl-2-pentanol  
Benzyl alcohol  
2-Methylphenol  
3-Methylphenol  
4-Methylphenol  
2-Methylcyclohexanol  
2,4-Dimethyl-3-pentanol  
3-Ethyl-3-pentanol  
1-Heptanol  
2,4-Dimethylphenol  
2,6-Dimethylphenol  
alpha-Phenylethanol  
2-Ethyl-1-hexanol  
1-Octanol  
2-Octanol  
2-Phenyl-2-propanol  
1-Nonanol  
2-tert-Butylphenol  
3,7-Dimethyl-6-octen-1-yn-3-ol  
1-Decanol  
2-tert-Butyl-5-methylphenol  
2-tert-Butyl-6-methylphenol  
1-Undecanol  
2,6-Di-isopropylphenol  
1-Dodecanol  
2,6-Di-tert-butylphenol  
1-Tetradecanol  
p-Cumylphenol  
1-Hexadecanol

## SUBJECTS OF VOLUME I

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	1 b
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	3 c
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	8 a

## AUTHOR'S PREFACE

This volume is another supplement of our Vapor-Liquid Equilibrium Data Collection. It contains VLE data of systems with  $C_{5+}$ -alcohols and the different phenols from the Dortmund Data Bank.

Besides consulting and the development of software tools for the synthesis and design of the various industrial processes the continuous update of the Dortmund Data Bank (DDB), is one of the main activities of DDBST GmbH ([www.ddbst.com](http://www.ddbst.com)).

Today the Dortmund Data Bank (DDB) is the largest factual data bank for thermophysical properties. It contains all types of pure component properties and mixture data, such as phase equilibria, excess and transport properties for non-electrolyte, electrolyte and polymer systems. The Dortmund Data Bank (DDB) and the software package is used in-house by a large number of companies. A great part of the stored data is also available online via DETHERM ... on the Web.

The edition of this volume would not have been possible without the valuable efforts of the DDBST team. With gratitude we would also like to mention Dr. R. Sass from DECHEMA for his reliable cooperation in editing this volume.

Oldenburg and Dortmund, December 2010

J. Gmehling

U. Onken

## PREFACE OF THE EDITOR

DECHEMA e.V. Society for Chemical Engineering and Biotechnology was founded in 1926 with the aim of improving cooperation between chemists and engineers. One concrete implementation of this aim was the publication in the mid-1970s of collections of basic thermophysical data in electronic and book form in response to the increasing importance of mathematical modelling, computer simulation and optimization. On account of its sheer volume and limited circle of interest, this was not the sort of material that publishers rush to publish. DECHEMA leapt into the breach and has since sponsored and published the DECHEMA Chemistry Data Series for well over a quarter of a century. Much of the original work to determine the values obtained was financed by the German Federal Ministry of Research and Technology.

We hope that the publication of this collection of data in the DECHEMA Chemistry Data Series will encourage other authors to publish their own collections of thermophysical data and it goes without saying that we would be happy to pass on the experience we have accumulated over the years.

Finally, no new edition would be complete without a word of thanks to our readers – scientists and engineers from the thermophysical data community – for their constructive suggestions and input which have contributed to its success. We are confident that you will find this new edition of the DECHEMA Chemistry Data Series not only useful, but also interesting and inspiring.

Frankfurt am Main, December 2010

Richard Sass

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## Alcohols and Phenols

## Formula Index of Binary Systems

C <sub>5</sub> H <sub>8</sub> O	2-Methyl-3-butyn-2-ol	C <sub>2</sub> H <sub>6</sub> OS	Dimethyl sulfoxide	2
		C <sub>5</sub> H <sub>9</sub> NO	N-Methyl-2-pyrrolidone	3
		C <sub>5</sub> H <sub>10</sub> O	2-Methyl-3-buten-2-ol	4
C <sub>5</sub> H <sub>10</sub> O	Cyclopentanol	C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	1,4-Dioxane	5
		C <sub>5</sub> H <sub>10</sub>	Cyclopentane	6
	2-Methyl-3-buten-2-ol	CH <sub>2</sub> O	Formaldehyde	7–9
		C <sub>4</sub> H <sub>8</sub> O	Butyraldehyde	10
		C <sub>5</sub> H <sub>8</sub>	Methylenecyclobutane	11
		C <sub>6</sub> H <sub>10</sub> O	Methylene tetrahydropyran	12
		C <sub>6</sub> H <sub>12</sub>	1-Hexene	13
		C <sub>8</sub> H <sub>16</sub>	2,4,4-Trimethyl-2-pentene	14
	3-Methyl-3-buten-1-ol	CH <sub>2</sub> O	Formaldehyde	15–17
		C <sub>3</sub> H <sub>8</sub> O <sub>2</sub>	Dimethoxymethane	18
		C <sub>5</sub> H <sub>8</sub>	Isoprene	19
		C <sub>5</sub> H <sub>8</sub>	Methylenecyclobutane	20
		C <sub>6</sub> H <sub>10</sub> O	Methyldihydropyran <Isomer not specified>	21
		C <sub>6</sub> H <sub>10</sub> O	Methylene tetrahydropyran	22
		C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	4,4-Dimethyl-1,3-dioxane	23
		C <sub>9</sub> H <sub>20</sub>	Nonane	24
		C <sub>10</sub> H <sub>22</sub>	Decane	25
C <sub>5</sub> H <sub>12</sub> O	2,2-Dimethyl-1-propanol	C <sub>5</sub> H <sub>12</sub> O	Methyl tert-butyl ether (MTBE)	26–28
		C <sub>6</sub> H <sub>12</sub> O	3,3-Dimethyl-2-butanone	29–31
	2-Methyl-1-butanol	C <sub>2</sub> Cl <sub>4</sub>	Tetrachloroethylene	32–34
		C <sub>2</sub> HCl <sub>3</sub>	Trichloroethylene	35
		C <sub>2</sub> H <sub>3</sub> Cl <sub>3</sub>	1,1,1-Trichloroethane [R140A]	36
		C <sub>2</sub> H <sub>4</sub> Cl <sub>2</sub>	1,2-Dichloroethane	37
		C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	Ethyl acetate	38, 39
		C <sub>5</sub> H <sub>12</sub> O	3-Methyl-1-butanol	40, 41
		C <sub>5</sub> H <sub>12</sub> O	1-Pentanol	42
		C <sub>5</sub> H <sub>12</sub> O	tert-Pentanol	43
		C <sub>6</sub> H <sub>12</sub>	Cyclohexane	44
		C <sub>6</sub> H <sub>14</sub>	Hexane	45–48
		C <sub>7</sub> H <sub>16</sub>	Heptane	49–53
		C <sub>10</sub> H <sub>22</sub>	Decane	54

C <sub>5</sub> H <sub>12</sub> O	3-Methyl-1-butanol	C <sub>2</sub> Cl <sub>4</sub>	Tetrachloroethylene	55
		C <sub>2</sub> HCl <sub>3</sub>	Trichloroethylene	56
		C <sub>4</sub> H <sub>6</sub> O <sub>2</sub>	Vinyl acetate	57
		C <sub>4</sub> H <sub>8</sub> O	2-Butanone	58
		C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	Ethyl acetate	59–61
		C <sub>5</sub> H <sub>8</sub> O	Cyclopentanone	62
		C <sub>5</sub> H <sub>9</sub> NO	N-Methyl-2-pyrrolidone	63
		C <sub>5</sub> H <sub>12</sub> O	1-Pentanol	64–68
		C <sub>6</sub> H <sub>5</sub> Cl	Chlorobenzene	69
		C <sub>6</sub> H <sub>6</sub> O	Phenol	70
		C <sub>6</sub> H <sub>10</sub> O	Cyclohexanone	71
		C <sub>6</sub> H <sub>12</sub> O	Cyclohexanol	72
		C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	Acetic acid butyl ester	73–75
		C <sub>6</sub> H <sub>14</sub>	Hexane	76–79
		C <sub>6</sub> H <sub>14</sub> O	Diisopropyl ether	80
		C <sub>6</sub> H <sub>18</sub> OSi <sub>2</sub>	Hexamethyl disiloxane	81
		C <sub>7</sub> H <sub>7</sub> Cl	Benzyl chloride	82
		C <sub>7</sub> H <sub>14</sub> O	2,4-Dimethyl-3-pentanone	83
		C <sub>7</sub> H <sub>16</sub>	Heptane	84–88
		C <sub>7</sub> H <sub>16</sub> O	2,4-Dimethyl-3-pentanol	89, 90
C <sub>8</sub> H <sub>10</sub>	Ethylbenzene	91, 92		
C <sub>21</sub> H <sub>21</sub> NO	Benzylaminoxide	93		
	3-Methyl-2-butanol	C <sub>5</sub> H <sub>10</sub> O	Methyl isopropyl ketone	94–96
		C <sub>5</sub> H <sub>12</sub> O	1-Pentanol	97
		C <sub>5</sub> H <sub>12</sub> O	tert-Pentanol	98
		C <sub>6</sub> H <sub>5</sub> Cl	Chlorobenzene	99
		C <sub>6</sub> H <sub>14</sub>	2-Methylpentane	100, 101
		C <sub>7</sub> H <sub>16</sub>	Heptane	102
1-Pentanol		CCl <sub>4</sub>	Tetrachloromethane	103
		C <sub>2</sub> Cl <sub>4</sub>	Tetrachloroethylene	104
		C <sub>2</sub> HCl <sub>3</sub>	Trichloroethylene	105
		C <sub>3</sub> H <sub>6</sub> O <sub>2</sub>	Propionic acid	106
		C <sub>3</sub> H <sub>6</sub> O <sub>3</sub>	Carbonic acid dimethyl ester	107
		C <sub>3</sub> H <sub>7</sub> NO	N,N-Dimethylformamide (DMF)	108–110
		C <sub>3</sub> H <sub>8</sub> O <sub>2</sub>	2-Methoxyethanol	111–113

## Alcohols and Phenols

## Formula Index of Binary Systems

C <sub>5</sub> H <sub>12</sub> O	1-Pentanol	C <sub>4</sub> H <sub>7</sub> N	Butanenitrile	114
		C <sub>4</sub> H <sub>8</sub> O	2-Butanone	115, 116
		C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	Ethyl acetate	117–119
		C <sub>4</sub> H <sub>10</sub> O <sub>3</sub>	Diethylene glycol	120
		C <sub>5</sub> H <sub>8</sub> O	Cyclopentanone	121
		C <sub>5</sub> H <sub>10</sub> O <sub>3</sub>	Carbonic acid diethyl ester	122
		C <sub>5</sub> H <sub>12</sub> O	tert-Pentanol	123
		C <sub>6</sub> H <sub>6</sub>	Benzene	124
		C <sub>6</sub> H <sub>6</sub> O	Phenol	125
		C <sub>6</sub> H <sub>7</sub> N	Aniline	126
		C <sub>6</sub> H <sub>10</sub> O	Cyclohexanone	127
		C <sub>6</sub> H <sub>12</sub>	Cyclohexane	128
		C <sub>6</sub> H <sub>12</sub> O	Cyclohexanol	129
		C <sub>6</sub> H <sub>12</sub> O	2-Hexanone	130–133
		C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	Acetic acid butyl ester	134
		C <sub>6</sub> H <sub>14</sub>	Hexane	135–139
		C <sub>6</sub> H <sub>14</sub> O	Di-n-propyl ether	140
		C <sub>6</sub> H <sub>14</sub> O <sub>2</sub>	2-Butoxyethanol	141
		C <sub>6</sub> H <sub>18</sub> OSi <sub>2</sub>	Hexamethyl disiloxane	142
		C <sub>7</sub> H <sub>8</sub> O	Methoxybenzene	143–147
		C <sub>7</sub> H <sub>16</sub>	Heptane	148–156
		C <sub>8</sub> H <sub>8</sub> O	Acetophenone	157
		C <sub>8</sub> H <sub>10</sub>	Ethylbenzene	158
		C <sub>8</sub> H <sub>18</sub>	2,2,4-Trimethylpentane	159
		C <sub>8</sub> H <sub>18</sub> O	Dibutyl ether	160–163
		C <sub>9</sub> H <sub>20</sub>	Nonane	164–167
		C <sub>10</sub> H <sub>16</sub>	alpha-Pinene	168–172
		C <sub>10</sub> H <sub>16</sub>	beta-Pinene	173, 174
		C <sub>10</sub> H <sub>16</sub>	D-(+)-Limonene	175–178
	2-Pentanol	C <sub>6</sub> H <sub>12</sub>	Cyclohexane	179–181
		C <sub>6</sub> H <sub>14</sub>	Hexane	182–188
		C <sub>7</sub> H <sub>16</sub>	Heptane	189–193

C <sub>5</sub> H <sub>12</sub> O	3-Pentanol	C <sub>5</sub> H <sub>10</sub> O	2-Pentanone	194
		C <sub>5</sub> H <sub>10</sub> O	3-Pentanone	195
		C <sub>6</sub> H <sub>6</sub>	Benzene	196
		C <sub>6</sub> H <sub>14</sub>	Hexane	197–200
		C <sub>7</sub> H <sub>16</sub>	Heptane	201–205
<hr/>				
	tert-Pentanol	C <sub>2</sub> H <sub>4</sub> O <sub>2</sub>	Acetic acid	206
		C <sub>3</sub> H <sub>6</sub> O	Propanal	207, 208
		C <sub>4</sub> H <sub>8</sub> O	2-Butanone	209, 210
		C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	Ethyl acetate	211
		C <sub>5</sub> H <sub>10</sub>	2-Methyl-2-butene	212, 213
		C <sub>5</sub> H <sub>10</sub> O	Methyl isopropyl ketone	214, 215
		C <sub>5</sub> H <sub>12</sub>	Pentane	216, 217
		C <sub>6</sub> H <sub>5</sub> Cl	Chlorobenzene	218
		C <sub>6</sub> H <sub>6</sub>	Benzene	219
		C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	Acetic acid butyl ester	220
		C <sub>6</sub> H <sub>14</sub>	Hexane	221–229
		C <sub>6</sub> H <sub>14</sub> O	Methyl tert-amyl ether (TAME)	230–233
		C <sub>7</sub> H <sub>16</sub>	Heptane	234–241
<hr/>				
C <sub>6</sub> H <sub>6</sub> O	Phenol	Cl <sub>4</sub> Sn	Tin tetrachloride	242–244
		CCl <sub>4</sub>	Tetrachloromethane	245
		CS <sub>2</sub>	Carbon disulfide	246
		CHCl <sub>3</sub>	Chloroform	247
		CH <sub>2</sub> Cl <sub>2</sub>	Dichloromethane	248
		C <sub>2</sub> H <sub>2</sub> Cl <sub>2</sub>	trans-1,2-Dichloroethene	249
		C <sub>2</sub> H <sub>4</sub> Cl <sub>2</sub>	1,2-Dichloroethane	250
		C <sub>2</sub> H <sub>4</sub> Cl <sub>2</sub>	1,1-Dichloroethane [R150A]	251
		C <sub>3</sub> H <sub>6</sub> O	Acetone	252–259
		C <sub>3</sub> H <sub>6</sub> O <sub>2</sub>	Formic acid ethyl ester	260, 261
		C <sub>3</sub> H <sub>6</sub> O <sub>2</sub>	Propionic acid	262, 263
		C <sub>3</sub> H <sub>6</sub> O <sub>3</sub>	Carbonic acid dimethyl ester	264
		C <sub>3</sub> H <sub>7</sub> NO	N-Methylacetamide	265, 266
		C <sub>4</sub> H <sub>8</sub> O	Tetrahydrofuran	267
		C <sub>4</sub> H <sub>10</sub>	n-Butane	268

C <sub>6</sub> H <sub>6</sub> O	Phenol	C <sub>4</sub> H <sub>10</sub> O <sub>2</sub>	2-Ethoxyethanol	269–271
		C <sub>5</sub> H <sub>12</sub>	Pentane	272
		C <sub>6</sub> H <sub>5</sub> Cl	Chlorobenzene	273–275
		C <sub>6</sub> H <sub>5</sub> NO <sub>2</sub>	Nitrobenzene	276, 277
		C <sub>6</sub> H <sub>6</sub>	Benzene	278–280
		C <sub>6</sub> H <sub>6</sub> O <sub>2</sub>	1,3-Dihydroxybenzene <Resorcinol>	281, 282
		C <sub>6</sub> H <sub>7</sub> N	Aniline	283
		C <sub>6</sub> H <sub>10</sub> O	Cyclohexanone	284–291
		C <sub>6</sub> H <sub>10</sub> O	4-Methyl-3-penten-2-one	292, 293
		C <sub>6</sub> H <sub>12</sub>	Cyclohexane	294
		C <sub>6</sub> H <sub>12</sub> O	Cyclohexanol	295–301
		C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	Acetic acid butyl ester	302–306
		C <sub>6</sub> H <sub>14</sub>	Hexane	307
		C <sub>6</sub> H <sub>14</sub> O	Diisopropyl ether	308
		C <sub>6</sub> H <sub>14</sub> O	Methyl tert-amyl ether (TAME)	309
		C <sub>6</sub> H <sub>14</sub> O <sub>3</sub>	Diethylene glycol dimethyl ether	310
		C <sub>7</sub> H <sub>8</sub>	Toluene	311–316
		C <sub>7</sub> H <sub>8</sub> O	Benzyl alcohol	317
		C <sub>7</sub> H <sub>8</sub> O	2-Methylphenol	318–326
		C <sub>7</sub> H <sub>8</sub> O	3-Methylphenol	327, 328
		C <sub>7</sub> H <sub>8</sub> O	4-Methylphenol	329–333
		C <sub>7</sub> H <sub>8</sub> O <sub>2</sub>	2-Methoxyphenol	334–336
		C <sub>7</sub> H <sub>16</sub>	Heptane	337
		C <sub>8</sub> H <sub>8</sub>	Styrene	338–340
		C <sub>8</sub> H <sub>8</sub> O	Acetophenone	341–344
		C <sub>8</sub> H <sub>10</sub>	Ethylbenzene	345–348
		C <sub>8</sub> H <sub>10</sub> O	alpha-Phenylethanol	349–352
		C <sub>8</sub> H <sub>14</sub> O	1,2-Epoxy-7-octene	353
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		C <sub>8</sub> H <sub>16</sub> O <sub>2</sub>	Hexyl acetate	357
		C <sub>9</sub> H <sub>10</sub> O	2-Phenylpropionaldehyde	358, 359
		C <sub>9</sub> H <sub>12</sub>	Isopropylbenzene	360–369
		C <sub>9</sub> H <sub>12</sub>	Propylbenzene	370–373
		C <sub>9</sub> H <sub>12</sub>	1,2,3-Trimethylbenzene	374, 375
		C <sub>9</sub> H <sub>12</sub>	1,2,4-Trimethylbenzene	376, 377

C <sub>6</sub> H <sub>6</sub> O	Phenol	C <sub>9</sub> H <sub>12</sub> O	2-Phenyl-2-propanol	378–381
		C <sub>9</sub> H <sub>18</sub>	1-Nonene	382
		C <sub>9</sub> H <sub>18</sub> O <sub>2</sub>	Heptyl acetate	383
		C <sub>10</sub> H <sub>8</sub>	Naphthalene	384, 385
		C <sub>10</sub> H <sub>12</sub>	1,2,3,4-Tetrahydronaphthalene	386–391
		C <sub>10</sub> H <sub>14</sub>	Butylbenzene	392–396
		C <sub>10</sub> H <sub>14</sub>	Diethylbenzene <Isomer not specified>	397
		C <sub>10</sub> H <sub>14</sub> O	2-tert-Butylphenol	398, 399
		C <sub>10</sub> H <sub>18</sub>	trans-Decahydronaphthalene	400, 401
		C <sub>10</sub> H <sub>18</sub>	Decalin <Isomer not specified>	402
		C <sub>10</sub> H <sub>20</sub>	n-Butylcyclohexane	403, 404
		C <sub>10</sub> H <sub>22</sub>	Decane	405
		C <sub>11</sub> H <sub>10</sub>	1-Methylnaphthalene	406
		C <sub>12</sub> H <sub>12</sub>	1-Ethyl-naphthalene	407, 408
		C <sub>12</sub> H <sub>20</sub> O	(1,1'-Bicyclohexyl)one <Isomer not specified>	409, 410
		C <sub>12</sub> H <sub>22</sub> O	1,1'-Oxybiscyclohexane	411
		C <sub>12</sub> H <sub>26</sub>	Dodecane	412, 413
		C <sub>14</sub> H <sub>12</sub> O <sub>2</sub>	Benzyl benzoate	414
		C <sub>15</sub> H <sub>16</sub> O	p-Cumylphenol	415–418
		C <sub>16</sub> H <sub>20</sub>	1-Hexyl-naphthalene	419
C <sub>18</sub> H <sub>30</sub>	1-Phenyldodecane	420		
C <sub>20</sub> H <sub>42</sub>	Eicosane	421		
C <sub>30</sub> H <sub>62</sub>	Triacontane	422		
C <sub>6</sub> H <sub>6</sub> O <sub>2</sub>	1,2-Dihydroxybenzene <Pyrocatechol>	C <sub>4</sub> H <sub>10</sub> O	Diethyl ether	423
		C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	Acetic acid butyl ester	424–428
		C <sub>7</sub> H <sub>8</sub> O	4-Methylphenol	429–432
		C <sub>7</sub> H <sub>8</sub> O <sub>2</sub>	p-Methoxyphenol	433, 434
	1,3-Dihydroxybenzene <Resorcinol>	C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	Acetic acid butyl ester	435–440
		C <sub>7</sub> H <sub>8</sub> O	2-Methylphenol	441–443
		C <sub>7</sub> H <sub>8</sub> O	4-Methylphenol	444–446
C <sub>6</sub> H <sub>10</sub> O	2-Hexyn-1-ol	C <sub>6</sub> H <sub>14</sub> O	1-Hexanol	447–449
		C <sub>9</sub> H <sub>20</sub>	Nonane	450–452

## Alcohols and Phenols

## Formula Index of Binary Systems

C <sub>6</sub> H <sub>12</sub> O	Cyclohexanol	C <sub>3</sub> H <sub>6</sub> O	Acetone	453	
		C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	Ethyl acetate	454, 455	
		C <sub>4</sub> H <sub>10</sub> O <sub>3</sub>	Diethylene glycol	456	
		C <sub>5</sub> H <sub>8</sub> O	Cyclopentanone	457	
		C <sub>6</sub> H <sub>10</sub>	Cyclohexene	458–461	
		C <sub>6</sub> H <sub>10</sub> O	Cyclohexanone	462–473	
		C <sub>6</sub> H <sub>12</sub>	Cyclohexane	474–478	
		C <sub>6</sub> H <sub>12</sub> O	Hexanal	479–482	
		C <sub>6</sub> H <sub>12</sub> O	2-Hexanone	483–485	
		C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	Acetic acid butyl ester	486	
		C <sub>6</sub> H <sub>14</sub> O <sub>3</sub>	2-Ethyl-2-hydroxymethyl-1,3-propanediol	487–489	
		C <sub>7</sub> H <sub>8</sub> O	Benzyl alcohol	490, 491	
		C <sub>7</sub> H <sub>12</sub> O	2-Methylcyclohexanone	492	
		C <sub>7</sub> H <sub>12</sub> O <sub>2</sub>	Cyclohexyl ester formic acid	493	
		C <sub>8</sub> H <sub>10</sub>	m-Xylene	494–497	
		C <sub>8</sub> H <sub>10</sub>	o-Xylene	498–500	
		C <sub>8</sub> H <sub>10</sub>	p-Xylene	501	
		C <sub>9</sub> H <sub>20</sub>	Nonane	502–504	
		C <sub>12</sub> H <sub>20</sub> O	(1,1'-Bicyclohexyl)one <isomer not specified>	505, 506	
		C <sub>6</sub> H <sub>14</sub> O	(+-)-2-Hexanol	CH <sub>2</sub> O	Formaldehyde
1-Hexanol	C <sub>2</sub> Cl <sub>4</sub>			Tetrachloroethylene	508
C <sub>2</sub> HCl <sub>3</sub>	Trichloroethylene			509	
C <sub>2</sub> H <sub>2</sub> Cl <sub>4</sub>	1,1,2,2-Tetrachloroethane			510	
C <sub>2</sub> H <sub>4</sub> Cl <sub>2</sub>	1,2-Dichloroethane			511	
C <sub>2</sub> H <sub>4</sub> O <sub>2</sub>	Acetic acid			512–514	
C <sub>3</sub> H <sub>6</sub> O <sub>3</sub>	Carbonic acid dimethyl ester			515, 516	
C <sub>4</sub> H <sub>7</sub> N	Butanenitrile			517–524	
C <sub>4</sub> H <sub>8</sub> O	2-Butanone			525–531	
C <sub>4</sub> H <sub>9</sub> Br	Butyl bromide			532–540	
C <sub>4</sub> H <sub>9</sub> Cl	Butyl chloride			541–550	
C <sub>4</sub> H <sub>10</sub> O <sub>3</sub>	Diethylene glycol			551	
C <sub>5</sub> H <sub>10</sub> O <sub>3</sub>	Carbonic acid diethyl ester			552, 553	
C <sub>5</sub> H <sub>12</sub> O	Methyl tert-butyl ether (MTBE)			554–556	
C <sub>6</sub> H <sub>10</sub> O	Cyclohexanone			557, 558	
C <sub>6</sub> H <sub>12</sub>	Cyclohexane			559–562	
C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	Acetic acid isobutyl ester			563	

C <sub>6</sub> H <sub>14</sub> O	1-Hexanol	C <sub>6</sub> H <sub>14</sub> O	Di-n-propyl ether	564–570
		C <sub>6</sub> H <sub>14</sub> O <sub>2</sub>	1-Propoxy-2-Propanol	571
		C <sub>8</sub> H <sub>10</sub>	Ethylbenzene	572
		C <sub>8</sub> H <sub>16</sub> O	2-Octanone	573–576
		C <sub>8</sub> H <sub>16</sub> O <sub>2</sub>	Hexyl acetate	577–584
		C <sub>10</sub> H <sub>16</sub>	alpha-Pinene	585–587
	2-Methyl-1-pentanol	C <sub>3</sub> H <sub>5</sub> N	Propionitrile	588, 589
		C <sub>3</sub> H <sub>6</sub> O	Propanal	590
	4-Methyl-1-pentanol	C <sub>7</sub> H <sub>16</sub> O	2,4-Dimethyl-3-pentanol	591
	4-Methyl-2-pentanol	C <sub>6</sub> H <sub>12</sub> O	4-Methyl-2-pentanone	592–594
C <sub>7</sub> H <sub>8</sub> O	Benzyl alcohol	C <sub>3</sub> H <sub>6</sub> O <sub>3</sub>	Carbonic acid dimethyl ester	595
		C <sub>6</sub> H <sub>14</sub>	Hexane	596
		C <sub>7</sub> H <sub>6</sub> O	Benzaldehyde	597
		C <sub>7</sub> H <sub>16</sub>	Heptane	598
		C <sub>8</sub> H <sub>8</sub> O	Acetophenone	599–607
		C <sub>9</sub> H <sub>12</sub>	Isopropylbenzene	608
		C <sub>10</sub> H <sub>22</sub>	Decane	609
		C <sub>12</sub> H <sub>10</sub>	Biphenyl	610–616
		C <sub>14</sub> H <sub>12</sub> O <sub>2</sub>	Benzyl benzoate	617
2-Methylphenol		CHCl <sub>3</sub>	Chloroform	618
		C <sub>2</sub> Cl <sub>4</sub>	Tetrachloroethylene	619
		C <sub>2</sub> HCl <sub>3</sub>	Trichloroethylene	620
		C <sub>2</sub> H <sub>2</sub> Cl <sub>4</sub>	1,1,2,2-Tetrachloroethane	621
		C <sub>2</sub> H <sub>4</sub> Cl <sub>2</sub>	1,2-Dichloroethane	622
		C <sub>3</sub> H <sub>7</sub> NO	N,N-Dimethylformamide (DMF)	623
		C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	Ethyl acetate	624
		C <sub>4</sub> H <sub>10</sub> O <sub>3</sub>	Diethylene glycol	625–628
		C <sub>6</sub> H <sub>5</sub> NO <sub>2</sub>	Nitrobenzene	629
		C <sub>6</sub> H <sub>6</sub>	Benzene	630
		C <sub>6</sub> H <sub>7</sub> N	Aniline	631
		C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	Acetic acid butyl ester	632–635
		C <sub>7</sub> H <sub>5</sub> N	Benzonitrile	636
		C <sub>7</sub> H <sub>6</sub> O	Benzaldehyde	637–641
		C <sub>7</sub> H <sub>8</sub>	Toluene	642–645



## Alcohols and Phenols

## Formula Index of Binary Systems

C <sub>7</sub> H <sub>8</sub> O	2-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	4-Methylphenol	646–650	
		C <sub>7</sub> H <sub>8</sub> O <sub>2</sub>	2-Methoxyphenol	651–654	
		C <sub>7</sub> H <sub>16</sub>	Heptane	655	
		C <sub>8</sub> H <sub>10</sub>	Ethylbenzene	656	
		C <sub>8</sub> H <sub>10</sub>	m-Xylene	657	
		C <sub>8</sub> H <sub>10</sub>	o-Xylene	658	
		C <sub>8</sub> H <sub>10</sub>	p-Xylene	659	
		C <sub>8</sub> H <sub>10</sub> O	2,6-Dimethylphenol	660–662	
		C <sub>8</sub> H <sub>16</sub> O <sub>2</sub>	Hexyl acetate	663	
		C <sub>8</sub> H <sub>18</sub>	Octane	664–666	
		C <sub>9</sub> H <sub>18</sub> O <sub>2</sub>	Heptyl acetate	667	
		C <sub>9</sub> H <sub>20</sub>	Nonane	668–670	
		C <sub>10</sub> H <sub>8</sub>	Naphthalene	671	
		C <sub>10</sub> H <sub>12</sub>	1,2,3,4-Tetrahydronaphthalene	672–674	
		C <sub>10</sub> H <sub>22</sub>	Decane	675–678	
		C <sub>11</sub> H <sub>24</sub>	n-Undecane	679–682	
	3-Methylphenol		C <sub>2</sub> Cl <sub>4</sub>	Tetrachloroethylene	683
			C <sub>2</sub> H <sub>2</sub> Cl <sub>4</sub>	1,1,2,2-Tetrachloroethane	684
			C <sub>2</sub> H <sub>3</sub> Cl <sub>3</sub>	1,1,1-Trichloroethane [R140A]	685
		C <sub>2</sub> H <sub>4</sub> Cl <sub>2</sub>	1,2-Dichloroethane	686	
		C <sub>3</sub> H <sub>7</sub> NO	N,N-Dimethylformamide (DMF)	687	
		C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	Ethyl acetate	688	
		C <sub>4</sub> H <sub>10</sub> O <sub>3</sub>	Diethylene glycol	689–692	
		C <sub>6</sub> H <sub>5</sub> Br	Bromobenzene	693	
		C <sub>6</sub> H <sub>5</sub> NO <sub>2</sub>	Nitrobenzene	694	
		C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	Acetic acid butyl ester	695–698	
		C <sub>6</sub> H <sub>14</sub> O <sub>3</sub>	Diethylene glycol dimethyl ether	699	
		C <sub>7</sub> H <sub>5</sub> N	Benzonitrile	700	
		C <sub>7</sub> H <sub>6</sub> O	Benzaldehyde	701, 702	
		C <sub>7</sub> H <sub>8</sub>	Toluene	703–706	
		C <sub>7</sub> H <sub>8</sub> O	4-Methylphenol	707	
		C <sub>7</sub> H <sub>8</sub> O <sub>2</sub>	2-Methoxyphenol	708–711	
		C <sub>8</sub> H <sub>10</sub>	m-Xylene	712	
		C <sub>8</sub> H <sub>10</sub>	o-Xylene	713	
		C <sub>8</sub> H <sub>10</sub>	p-Xylene	714	
		C <sub>8</sub> H <sub>18</sub>	Octane	715, 716	

C <sub>7</sub> H <sub>8</sub> O	3-Methylphenol	C <sub>9</sub> H <sub>7</sub> N	Quinoline	717
		C <sub>9</sub> H <sub>12</sub>	Isopropylbenzene	718
		C <sub>9</sub> H <sub>12</sub>	1,2,4-Trimethylbenzene	719
		C <sub>9</sub> H <sub>20</sub>	Nonane	720–723
		C <sub>10</sub> H <sub>8</sub>	Naphthalene	724, 725
		C <sub>10</sub> H <sub>12</sub>	1,2,3,4-Tetrahydronaphthalene	726, 727
		C <sub>10</sub> H <sub>22</sub>	Decane	728–731
		C <sub>11</sub> H <sub>10</sub>	2-Methylnaphthalene	732–734
		C <sub>11</sub> H <sub>24</sub>	n-Undecane	735–738
		C <sub>12</sub> H <sub>26</sub>	Dodecane	739–742
		C <sub>16</sub> H <sub>20</sub>	Diisopropylnaphthalene	743
	4-Methylphenol	CHCl <sub>3</sub>	Chloroform	744
		C <sub>2</sub> Cl <sub>4</sub>	Tetrachloroethylene	745
		C <sub>2</sub> HCl <sub>3</sub>	Trichloroethylene	746
		C <sub>2</sub> H <sub>2</sub> Cl <sub>4</sub>	1,1,2,2-Tetrachloroethane	747
		C <sub>2</sub> H <sub>4</sub> Cl <sub>2</sub>	1,2-Dichloroethane	748
		C <sub>3</sub> H <sub>7</sub> NO	N,N-Dimethylformamide (DMF)	749
		C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	Ethyl acetate	750
		C <sub>6</sub> H <sub>5</sub> NO <sub>2</sub>	Nitrobenzene	751
		C <sub>7</sub> H <sub>8</sub>	Toluene	752–756
		C <sub>7</sub> H <sub>8</sub> O <sub>2</sub>	p-Methoxyphenol	757–760
		C <sub>8</sub> H <sub>10</sub>	Ethylbenzene	761
		C <sub>8</sub> H <sub>10</sub>	m-Xylene	762
		C <sub>8</sub> H <sub>10</sub>	o-Xylene	763
		C <sub>8</sub> H <sub>10</sub>	p-Xylene	764
		C <sub>8</sub> H <sub>10</sub> O	2,4-Dimethylphenol	765
		C <sub>10</sub> H <sub>12</sub>	1,2,3,4-Tetrahydronaphthalene	766, 767
		C <sub>12</sub> H <sub>12</sub>	1-Ethyl-naphthalene	768
		C <sub>7</sub> H <sub>14</sub> O	2-Methylcyclohexanol <Isomer not specified>	CHCl <sub>3</sub>
C <sub>6</sub> H <sub>6</sub>	Benzene			770
C <sub>7</sub> H <sub>16</sub>	Heptane			771
C <sub>9</sub> H <sub>16</sub> O <sub>2</sub>	2-Methylcyclohexyl acetate			772–775
C <sub>7</sub> H <sub>16</sub> O	2,4-Dimethyl-3-pentanol	C <sub>7</sub> H <sub>14</sub> O	2,4-Dimethyl-3-pentanone	776, 777
		CH <sub>2</sub> O	Formaldehyde	778

## Alcohols and Phenols

## Formula Index of Binary Systems

C <sub>7</sub> H <sub>16</sub> O	1-Heptanol	CH <sub>2</sub> O	Formaldehyde	779
		C <sub>4</sub> H <sub>7</sub> N	Butanenitrile	780
C <sub>8</sub> H <sub>10</sub> O	2,4-Dimethylphenol	C <sub>6</sub> H <sub>14</sub> O	Diisopropyl ether	781
		C <sub>7</sub> H <sub>8</sub>	Toluene	782
		C <sub>10</sub> H <sub>12</sub>	1,2,3,4-Tetrahydronaphthalene	783–785
	2,6-Dimethylphenol	C <sub>4</sub> H <sub>10</sub> O <sub>3</sub>	Diethylene glycol	786
		C <sub>7</sub> H <sub>8</sub>	Toluene	787
	alpha-Phenylethanol	C <sub>7</sub> H <sub>8</sub>	Toluene	788
		C <sub>8</sub> H <sub>8</sub>	Styrene	789
		C <sub>8</sub> H <sub>8</sub> O	Acetophenone	790–794
		C <sub>8</sub> H <sub>10</sub>	Ethylbenzene	795
C <sub>8</sub> H <sub>18</sub> O	2-Ethyl-1-hexanol	CH <sub>2</sub> O <sub>2</sub>	Formic acid	796
		C <sub>3</sub> H <sub>7</sub> NO	N,N-Dimethylformamide (DMF)	797
		C <sub>4</sub> H <sub>8</sub> O	Butyraldehyde	798
		C <sub>5</sub> H <sub>10</sub> O <sub>2</sub>	Formic acid butyl ester	799
		C <sub>5</sub> H <sub>10</sub> O <sub>2</sub>	Isobutyl formate	800
		C <sub>7</sub> H <sub>8</sub>	Toluene	801
		C <sub>8</sub> H <sub>14</sub> O	Octen-4-al	802
		C <sub>8</sub> H <sub>18</sub> O	Dibutyl ether	803
		C <sub>8</sub> H <sub>18</sub> O	Diisobutyl ether	804
		C <sub>10</sub> H <sub>22</sub>	Decane	805–807
	1-Octanol	C <sub>2</sub> H <sub>4</sub> O <sub>2</sub>	Acetic acid	808, 809
		C <sub>3</sub> H <sub>6</sub> O	Acetone	810
		C <sub>4</sub> H <sub>7</sub> N	Butanenitrile	811–818
		C <sub>4</sub> H <sub>8</sub> O	2-Butanone	819–825
		C <sub>4</sub> H <sub>9</sub> Br	Butyl bromide	826–835
		C <sub>4</sub> H <sub>9</sub> Cl	Butyl chloride	836–845
		C <sub>5</sub> H <sub>10</sub> O	3-Pentanone	846
		C <sub>6</sub> H <sub>14</sub> O	Di-n-propyl ether	847–852
		C <sub>7</sub> H <sub>8</sub> O <sub>2</sub>	2-Methoxyphenol	853–855
		C <sub>7</sub> H <sub>16</sub>	Heptane	856
		C <sub>8</sub> H <sub>10</sub> O <sub>2</sub>	1,2-Dimethoxybenzene	857–860
		C <sub>8</sub> H <sub>18</sub>	Octane	861, 862
		C <sub>10</sub> H <sub>22</sub>	Decane	863, 864

$C_8H_{18}O$	2-Octanol	$C_7H_{16}$	Heptane	865
$C_9H_{12}O$	2-Phenyl-2-propanol	$C_8H_8O$	Acetophenone	866
		$C_8H_{12}O$	5,6-Epoxy-cis-cyclooctene	867
		$C_8H_{14}O$	1,2-Epoxy-7-octene	868
		$C_9H_{12}$	Isopropylbenzene	869
$C_9H_{20}O$	1-Nonanol	$C_4H_7N$	Butanenitrile	870
$C_{10}H_{14}O$	2-tert-Butylphenol	$C_{10}H_{14}O$	4-tert-Butylphenol	871
$C_{10}H_{16}O$	3,7-Dimethyl-6-octen-1-yn-3-ol	$C_2H_6OS$	Dimethyl sulfoxide	872
		$C_5H_9NO$	N-Methyl-2-pyrrolidone	873
		$C_{10}H_{18}O$	Linalool	874
$C_{10}H_{22}O$	1-Decanol	$CCl_4$	Tetrachloromethane	875–877
		$C_4H_7N$	Butanenitrile	878
		$C_4H_9Br$	Butyl bromide	879–887
		$C_4H_9Cl$	Butyl chloride	888–896
$C_{11}H_{16}O$	2-tert-Butyl-5-methylphenol	$C_6H_{12}$	Cyclohexane	897, 898
	2-tert-Butyl-6-methylphenol	$C_6H_{12}$	Cyclohexane	899, 900
$C_{11}H_{24}O$	1-Undecanol	$C_{12}H_{22}O$	Cyclododecanone	901, 902
$C_{12}H_{18}O$	2,6-Di-isopropylphenol	$C_6H_{12}$	Cyclohexane	903, 904
$C_{12}H_{26}O$	1-Dodecanol	$C_{11}H_{24}$	n-Undecane	905
		$C_{14}H_{30}$	Tetradecane	906
		$C_{16}H_{34}O$	1-Hexadecanol	907
$C_{14}H_{22}O$	2,6-Di-tert-butylphenol	$C_6H_{12}$	Cyclohexane	908, 909
$C_{14}H_{30}O$	1-Tetradecanol	$C_{11}H_{24}$	n-Undecane	910
		$C_{18}H_{38}O$	1-Octadecanol	911
$C_{15}H_{16}O$	p-Cumylphenol	$C_8H_8O$	Acetophenone	912
$C_{16}H_{34}O$	1-Hexadecanol	$C_{11}H_{24}$	n-Undecane	913

## Alcohols and Phenols

## Alphabetical Index of Binary Systems

Acetic acid	C <sub>2</sub> H <sub>4</sub> O <sub>2</sub>	1-Hexanol	C <sub>6</sub> H <sub>14</sub> O	512–514
		1-Octanol	C <sub>8</sub> H <sub>18</sub> O	808, 809
		tert-Pentanol	C <sub>5</sub> H <sub>12</sub> O	206
Acetic acid butyl ester	C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	Cyclohexanol	C <sub>6</sub> H <sub>12</sub> O	486
		1,2-Dihydroxybenzene <Pyrocatechol>	C <sub>6</sub> H <sub>6</sub> O <sub>2</sub>	424–428
		1,3-Dihydroxybenzene <Resorcinol>	C <sub>6</sub> H <sub>6</sub> O <sub>2</sub>	435–440
		3-Methyl-1-butanol	C <sub>5</sub> H <sub>12</sub> O	73–75
		2-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	632–635
		3-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	695–698
		1-Pentanol	C <sub>5</sub> H <sub>12</sub> O	134
		tert-Pentanol	C <sub>5</sub> H <sub>12</sub> O	220
		Phenol	C <sub>6</sub> H <sub>6</sub> O	302–306
Acetic acid isobutyl ester	C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	1-Hexanol	C <sub>6</sub> H <sub>14</sub> O	563
Acetone	C <sub>3</sub> H <sub>6</sub> O	Cyclohexanol	C <sub>6</sub> H <sub>12</sub> O	453
		1-Octanol	C <sub>8</sub> H <sub>18</sub> O	810
		Phenol	C <sub>6</sub> H <sub>6</sub> O	252–259
Acetophenone	C <sub>8</sub> H <sub>8</sub> O	Benzyl alcohol	C <sub>7</sub> H <sub>8</sub> O	599–607
		p-Cumylphenol	C <sub>15</sub> H <sub>16</sub> O	912
		1-Pentanol	C <sub>5</sub> H <sub>12</sub> O	157
		Phenol	C <sub>6</sub> H <sub>6</sub> O	341–344
		alpha-Phenylethanol	C <sub>8</sub> H <sub>10</sub> O	790–794
		2-Phenyl-2-propanol	C <sub>9</sub> H <sub>12</sub> O	866
Aniline	C <sub>6</sub> H <sub>7</sub> N	2-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	631
		1-Pentanol	C <sub>5</sub> H <sub>12</sub> O	126
		Phenol	C <sub>6</sub> H <sub>6</sub> O	283
Benzaldehyde	C <sub>7</sub> H <sub>6</sub> O	Benzyl alcohol	C <sub>7</sub> H <sub>8</sub> O	597
		2-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	637–641
		3-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	701,702
Benzene	C <sub>6</sub> H <sub>6</sub>	2-Methylcyclohexanol <Isomer not specified>	C <sub>7</sub> H <sub>14</sub> O	770
		2-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	630

Benzene	$C_6H_6$	1-Pentanol	$C_5H_{12}O$	124
		3-Pentanol	$C_5H_{12}O$	196
		tert-Pentanol	$C_5H_{12}O$	219
		Phenol	$C_6H_6O$	278–280
Benzonitrile	$C_7H_5N$	2-Methylphenol	$C_7H_8O$	636
		3-Methylphenol	$C_7H_8O$	700
Benzyl alcohol	$C_7H_8O$	Cyclohexanol	$C_6H_{12}O$	490, 491
		Phenol	$C_6H_6O$	317
Benzylaminoxide	$C_{21}H_{21}NO$	3-Methyl-1-butanol	$C_5H_{12}O$	93
Benzyl benzoate	$C_{14}H_{12}O_2$	Benzyl alcohol	$C_7H_8O$	617
		Phenol	$C_6H_6O$	414
Benzyl chloride	$C_7H_7Cl$	3-Methyl-1-butanol	$C_5H_{12}O$	82
(1,1'-Bicyclohexyl)one <Isomer not specified>	$C_{12}H_{20}O$	Cyclohexanol	$C_6H_{12}O$	505, 506
		Phenol	$C_6H_6O$	409, 410
Biphenyl	$C_{12}H_{10}$	Benzyl alcohol	$C_7H_8O$	610–616
Bromobenzene	$C_6H_5Br$	3-Methylphenol	$C_7H_8O$	693
n-Butane	$C_4H_{10}$	Phenol	$C_6H_6O$	268
Butanenitrile	$C_4H_7N$	1-Decanol	$C_{10}H_{22}O$	878
		1-Heptanol	$C_7H_{16}O$	780
		1-Hexanol	$C_6H_{14}O$	517–524
		1-Nonanol	$C_9H_{20}O$	870
		1-Octanol	$C_8H_{18}O$	811–818
		1-Pentanol	$C_5H_{12}O$	114
2-Butanone	$C_4H_8O$	1-Hexanol	$C_6H_{14}O$	525–531
		3-Methyl-1-butanol	$C_5H_{12}O$	58
		1-Octanol	$C_8H_{18}O$	819–825
		1-Pentanol	$C_5H_{12}O$	115, 116
		tert-Pentanol	$C_5H_{12}O$	209, 210
2-Butoxyethanol	$C_6H_{14}O_2$	1-Pentanol	$C_5H_{12}O$	141
Butylbenzene	$C_{10}H_{14}$	Phenol	$C_6H_6O$	392–396

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Butyl bromide	C <sub>4</sub> H <sub>9</sub> Br	1-Decanol	C <sub>10</sub> H <sub>22</sub> O	879–887
		1-Hexanol	C <sub>6</sub> H <sub>14</sub> O	532–540
		1-Octanol	C <sub>8</sub> H <sub>18</sub> O	826–835
Butyl chloride	C <sub>4</sub> H <sub>9</sub> Cl	1-Decanol	C <sub>10</sub> H <sub>22</sub> O	888–896
		1-Hexanol	C <sub>6</sub> H <sub>14</sub> O	541–550
		1-Octanol	C <sub>8</sub> H <sub>18</sub> O	836–845
n-Butylcyclohexane	C <sub>10</sub> H <sub>20</sub>	Phenol	C <sub>6</sub> H <sub>6</sub> O	403, 404
2-tert-Butylphenol	C <sub>10</sub> H <sub>14</sub> O	Phenol	C <sub>6</sub> H <sub>6</sub> O	398, 399
		4-tert-Butylphenol	C <sub>10</sub> H <sub>14</sub> O	871
Butyraldehyde	C <sub>4</sub> H <sub>8</sub> O	2-Ethyl-1-hexanol	C <sub>8</sub> H <sub>18</sub> O	798
		2-Methyl-3-buten-2-ol	C <sub>5</sub> H <sub>10</sub> O	10
Carbon disulfide	CS <sub>2</sub>	Phenol	C <sub>6</sub> H <sub>6</sub> O	246
Carbonic acid diethyl ester	C <sub>5</sub> H <sub>10</sub> O <sub>3</sub>	1-Hexanol	C <sub>6</sub> H <sub>14</sub> O	552, 553
		1-Pentanol	C <sub>5</sub> H <sub>12</sub> O	122
Carbonic acid dimethyl ester	C <sub>3</sub> H <sub>6</sub> O <sub>3</sub>	Benzyl alcohol	C <sub>7</sub> H <sub>8</sub> O	595
		1-Hexanol	C <sub>6</sub> H <sub>14</sub> O	515, 516
		1-Pentanol	C <sub>5</sub> H <sub>12</sub> O	107
		Phenol	C <sub>6</sub> H <sub>6</sub> O	264
Chlorobenzene	C <sub>6</sub> H <sub>5</sub> Cl	3-Methyl-1-butanol	C <sub>5</sub> H <sub>12</sub> O	69
		3-Methyl-2-butanol	C <sub>5</sub> H <sub>12</sub> O	99
		tert-Pentanol	C <sub>5</sub> H <sub>12</sub> O	218
		Phenol	C <sub>6</sub> H <sub>6</sub> O	273–275
Chloroform	CHCl <sub>3</sub>	2-Methylcyclohexanol <Isomer not specified>	C <sub>7</sub> H <sub>14</sub> O	769
		2-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	618
		4-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	744
		Phenol	C <sub>6</sub> H <sub>6</sub> O	247
p-Cumylphenol	C <sub>15</sub> H <sub>16</sub> O	Phenol	C <sub>6</sub> H <sub>6</sub> O	415–418
Cyclododecanone	C <sub>12</sub> H <sub>22</sub> O	1-Undecanol	C <sub>11</sub> H <sub>24</sub> O	901, 902

Cyclohexane	$C_6H_{12}$	2-tert-Butyl-5-methylphenol	$C_{11}H_{16}O$	897, 898
		2-tert-Butyl-6-methylphenol	$C_{11}H_{16}O$	899, 900
		Cyclohexanol	$C_6H_{12}O$	474–478
		2,6-Di-tert-butylphenol	$C_{14}H_{22}O$	908, 909
		2,6-Di-isopropylphenol	$C_{12}H_{18}O$	903, 904
		1-Hexanol	$C_6H_{14}O$	559–562
		2-Methyl-1-butanol	$C_5H_{12}O$	44
		1-Pentanol	$C_5H_{12}O$	128
		2-Pentanol	$C_5H_{12}O$	179–181
		Phenol	$C_6H_6O$	294
Cyclohexanol	$C_6H_{12}O$	3-Methyl-1-butanol	$C_5H_{12}O$	72
		1-Pentanol	$C_5H_{12}O$	129
		Phenol	$C_6H_6O$	295–301
Cyclohexanone	$C_6H_{10}O$	Cyclohexanol	$C_6H_{12}O$	462–473
		1-Hexanol	$C_6H_{14}O$	557, 558
		3-Methyl-1-butanol	$C_5H_{12}O$	71
		1-Pentanol	$C_5H_{12}O$	127
		Phenol	$C_6H_6O$	284–291
Cyclohexene	$C_6H_{10}$	Cyclohexanol	$C_6H_{12}O$	458–461
Cyclohexyl ester formic acid	$C_7H_{12}O_2$	Cyclohexanol	$C_6H_{12}O$	493
Cyclopentane	$C_5H_{10}$	Cyclopentanol	$C_5H_{10}O$	6
Cyclopentanone	$C_5H_8O$	Cyclohexanol	$C_6H_{12}O$	457
		3-Methyl-1-butanol	$C_5H_{12}O$	62
		1-Pentanol	$C_5H_{12}O$	121
trans-Decahydronaphthalene	$C_{10}H_{18}$	Phenol	$C_6H_6O$	400, 401
Decalin <Isomer not specified>	$C_{10}H_{18}$	Phenol	$C_6H_6O$	402
Decane	$C_{10}H_{22}$	Benzyl alcohol	$C_7H_8O$	609
		2-Ethyl-1-hexanol	$C_8H_{18}O$	805–807
		2-Methyl-1-butanol	$C_5H_{12}O$	54
		3-Methyl-3-buten-1-ol	$C_5H_{10}O$	25



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Decane	C <sub>10</sub> H <sub>22</sub>	2-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	675–678
		3-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	728–731
		1-Octanol	C <sub>8</sub> H <sub>18</sub> O	863, 864
		Phenol	C <sub>6</sub> H <sub>6</sub> O	405
Dibutyl ether	C <sub>8</sub> H <sub>18</sub> O	2-Ethyl-1-hexanol	C <sub>8</sub> H <sub>18</sub> O	803
		1-Pentanol	C <sub>5</sub> H <sub>12</sub> O	160–163
1,1-Dichloroethane [R150A]	C <sub>2</sub> H <sub>4</sub> Cl <sub>2</sub>	Phenol	C <sub>6</sub> H <sub>6</sub> O	251
1,2-Dichloroethane	C <sub>2</sub> H <sub>4</sub> Cl <sub>2</sub>	1-Hexanol	C <sub>6</sub> H <sub>14</sub> O	511
		2-Methyl-1-butanol	C <sub>5</sub> H <sub>12</sub> O	37
		2-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	622
		3-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	686
		4-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	748
		Phenol	C <sub>6</sub> H <sub>6</sub> O	250
trans-1,2-Dichloroethene	C <sub>2</sub> H <sub>2</sub> Cl <sub>2</sub>	Phenol	C <sub>6</sub> H <sub>6</sub> O	249
Dichloromethane	CH <sub>2</sub> Cl <sub>2</sub>	Phenol	C <sub>6</sub> H <sub>6</sub> O	248
Diethylbenzene <Isomer not specified>	C <sub>10</sub> H <sub>14</sub>	Phenol	C <sub>6</sub> H <sub>6</sub> O	397
Diethylene glycol	C <sub>4</sub> H <sub>10</sub> O <sub>3</sub>	Cyclohexanol	C <sub>6</sub> H <sub>12</sub> O	456
		2,6-Dimethylphenol	C <sub>8</sub> H <sub>10</sub> O	786
		1-Hexanol	C <sub>6</sub> H <sub>14</sub> O	551
		2-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	625–628
		3-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	689–692
		1-Pentanol	C <sub>5</sub> H <sub>12</sub> O	120
Diethylene glycol dimethyl ether	C <sub>6</sub> H <sub>14</sub> O <sub>3</sub>	3-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	699
		Phenol	C <sub>6</sub> H <sub>6</sub> O	310
Diethyl ether	C <sub>4</sub> H <sub>10</sub> O	1,2-Dihydroxybenzene <Pyrocatechol>	C <sub>6</sub> H <sub>6</sub> O <sub>2</sub>	423
1,3-Dihydroxybenzene <Resorcinol>	C <sub>6</sub> H <sub>6</sub> O <sub>2</sub>	Phenol	C <sub>6</sub> H <sub>6</sub> O	281, 282
Diisobutyl ether	C <sub>8</sub> H <sub>18</sub> O	2-Ethyl-1-hexanol	C <sub>8</sub> H <sub>18</sub> O	804

Diisopropyl ether	C <sub>6</sub> H <sub>14</sub> O	2,4-Dimethylphenol	C <sub>8</sub> H <sub>10</sub> O	781
		3-Methyl-1-butanol	C <sub>5</sub> H <sub>12</sub> O	80
		Phenol	C <sub>6</sub> H <sub>6</sub> O	308
Diisopropylnaphthalene	C <sub>16</sub> H <sub>20</sub>	3-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	743
1,2-Dimethoxybenzene	C <sub>8</sub> H <sub>10</sub> O <sub>2</sub>	1-Octanol	C <sub>8</sub> H <sub>18</sub> O	857–860
Dimethoxymethane	C <sub>3</sub> H <sub>8</sub> O <sub>2</sub>	3-Methyl-3-buten-1-ol	C <sub>5</sub> H <sub>10</sub> O	18
3,3-Dimethyl-2-butanone	C <sub>6</sub> H <sub>12</sub> O	2,2-Dimethyl-1-propanol	C <sub>5</sub> H <sub>12</sub> O	29–31
4,4-Dimethyl-1,3-dioxane	C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	3-Methyl-3-buten-1-ol	C <sub>5</sub> H <sub>10</sub> O	23
N,N-Dimethylformamide (DMF)	C <sub>3</sub> H <sub>7</sub> NO	2-Ethyl-1-hexanol	C <sub>8</sub> H <sub>18</sub> O	797
		2-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	623
		3-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	687
		4-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	749
		1-Pentanol	C <sub>5</sub> H <sub>12</sub> O	108–110
2,4-Dimethyl-3-pentanol	C <sub>7</sub> H <sub>16</sub> O	2-Methyl-1-butanol	C <sub>5</sub> H <sub>12</sub> O	89, 90
		4-Methyl-1-pentanol	C <sub>6</sub> H <sub>14</sub> O	591
2,4-Dimethyl-3-pentanone	C <sub>7</sub> H <sub>14</sub> O	2,4-Dimethyl-3-pentanol	C <sub>7</sub> H <sub>16</sub> O	776, 777
		3-Methyl-1-butanol	C <sub>5</sub> H <sub>12</sub> O	83
2,4-Dimethylphenol	C <sub>8</sub> H <sub>10</sub> O	4-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	765
2,6-Dimethylphenol	C <sub>8</sub> H <sub>10</sub> O	2-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	660–662
Dimethyl sulfoxide	C <sub>2</sub> H <sub>6</sub> OS	3,7-Dimethyl-6-octen-1-yn-3-ol	C <sub>10</sub> H <sub>16</sub> O	872
		2-Methyl-3-butyne-2-ol	C <sub>5</sub> H <sub>8</sub> O	2
1,4-Dioxane	C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	Cyclopentanol	C <sub>5</sub> H <sub>10</sub> O	5
Di-n-propyl ether	C <sub>6</sub> H <sub>14</sub> O	1-Hexanol	C <sub>6</sub> H <sub>14</sub> O	564–570
		1-Octanol	C <sub>8</sub> H <sub>18</sub> O	847–852
		1-Pentanol	C <sub>5</sub> H <sub>12</sub> O	140
Dodecane	C <sub>12</sub> H <sub>26</sub>	3-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	739–742
		Phenol	C <sub>6</sub> H <sub>6</sub> O	412, 413

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Eicosane	C <sub>20</sub> H <sub>42</sub>	Phenol	C <sub>6</sub> H <sub>6</sub> O	421
5,6-Epoxy-cis-cyclooctene	C <sub>8</sub> H <sub>12</sub> O	2-Phenyl-2-propanol	C <sub>9</sub> H <sub>12</sub> O	867
1,2-Epoxy-7-octene	C <sub>8</sub> H <sub>14</sub> O	Phenol	C <sub>6</sub> H <sub>6</sub> O	353
		2-Phenyl-2-propanol	C <sub>9</sub> H <sub>12</sub> O	868
2-Ethoxyethanol	C <sub>4</sub> H <sub>10</sub> O <sub>2</sub>	Phenol	C <sub>6</sub> H <sub>6</sub> O	269–271
Ethyl acetate	C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	Cyclohexanol	C <sub>6</sub> H <sub>12</sub> O	454, 455
		2-Methyl-1-butanol	C <sub>5</sub> H <sub>12</sub> O	38, 39
		3-Methyl-1-butanol	C <sub>5</sub> H <sub>12</sub> O	59, 61
		2-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	624
		3-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	688
		4-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	750
		1-Pentanol	C <sub>5</sub> H <sub>12</sub> O	117–119
		tert-Pentanol	C <sub>5</sub> H <sub>12</sub> O	211
Ethylbenzene	C <sub>8</sub> H <sub>10</sub>	1-Hexanol	C <sub>6</sub> H <sub>14</sub> O	572
		3-Methyl-1-butanol	C <sub>5</sub> H <sub>12</sub> O	91, 92
		2-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	656
		4-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	761
		1-Pentanol	C <sub>5</sub> H <sub>12</sub> O	158
		Phenol	C <sub>6</sub> H <sub>6</sub> O	345–348
		alpha-Phenylethanol	C <sub>8</sub> H <sub>10</sub> O	795
Ethylcyclohexane	C <sub>8</sub> H <sub>16</sub>	Phenol	C <sub>6</sub> H <sub>6</sub> O	354, 355
2-Ethyl-2-hydroxymethyl-1,3-propanediol	C <sub>6</sub> H <sub>14</sub> O <sub>3</sub>	Cyclohexanol	C <sub>6</sub> H <sub>12</sub> O	487–489
1-Ethyl-naphthalene	C <sub>12</sub> H <sub>12</sub>	4-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	768
		Phenol	C <sub>6</sub> H <sub>6</sub> O	407, 408
Formaldehyde	CH <sub>2</sub> O	3-Ethyl-3-pentanol	C <sub>7</sub> H <sub>16</sub> O	778
		1-Heptanol	C <sub>7</sub> H <sub>16</sub> O	779
		(+)-2-Hexanol	C <sub>6</sub> H <sub>14</sub> O	507
		2-Methyl-3-buten-2-ol	C <sub>5</sub> H <sub>10</sub> O	7–9
		3-Methyl-3-buten-1-ol	C <sub>5</sub> H <sub>10</sub> O	15–17
Formic acid	CH <sub>2</sub> O <sub>2</sub>	2-Ethyl-1-hexanol	C <sub>8</sub> H <sub>18</sub> O	796

Formic acid butyl ester	$C_5H_{10}O_2$	2-Ethyl-1-hexanol	$C_8H_{18}O$	799
Formic acid ethyl ester	$C_3H_6O_2$	Phenol	$C_6H_6O$	260, 261
Heptane	$C_7H_{16}$	Benzyl alcohol	$C_7H_8O$	598
		2-Methyl-1-butanol	$C_5H_{12}O$	49–53
		3-Methyl-1-butanol	$C_5H_{12}O$	84–88
		3-Methyl-2-butanol	$C_5H_{12}O$	102
		2-Methylcyclohexanol <Isomer not specified>	$C_7H_{14}O$	771
		2-Methylphenol	$C_7H_8O$	655
		1-Octanol	$C_8H_{18}O$	856
		2-Octanol	$C_8H_{18}O$	865
		1-Pentanol	$C_5H_{12}O$	148–156
		2-Pentanol	$C_5H_{12}O$	189–193
		3-Pentanol	$C_5H_{12}O$	201–205
		tert-Pentanol	$C_5H_{12}O$	234–241
		Phenol	$C_6H_6O$	337
		Heptyl acetate	$C_9H_{18}O_2$	2-Methylphenol
Phenol	$C_6H_6O$			383
1-Hexadecanol	$C_{16}H_{34}O$	1-Dodecanol	$C_{12}H_{26}O$	907
Hexamethyl disiloxane	$C_6H_{18}OSi_2$	3-Methyl-1-butanol	$C_5H_{12}O$	81
		1-Pentanol	$C_5H_{12}O$	142
Hexanal	$C_6H_{12}O$	Cyclohexanol	$C_6H_{12}O$	479–482
Hexane	$C_6H_{14}$	Benzyl alcohol	$C_7H_8O$	596
		2-Methyl-1-butanol	$C_5H_{12}O$	45–48
		3-Methyl-1-butanol	$C_5H_{12}O$	76–79
		1-Pentanol	$C_5H_{12}O$	135–139
		2-Pentanol	$C_5H_{12}O$	182–188
		3-Pentanol	$C_5H_{12}O$	197–200
		tert-Pentanol	$C_5H_{12}O$	221–229
		Phenol	$C_6H_6O$	307

## Alcohols and Phenols

## Alphabetical Index of Binary Systems

1-Hexanol	C <sub>6</sub> H <sub>14</sub> O	2-Hexyn-1-ol	C <sub>6</sub> H <sub>10</sub> O	447–449
2-Hexanone	C <sub>6</sub> H <sub>12</sub> O	Cyclohexanol	C <sub>6</sub> H <sub>12</sub> O	483–485
		1-Pentanol	C <sub>5</sub> H <sub>12</sub> O	130–133
1-Hexene	C <sub>6</sub> H <sub>12</sub>	2-Methyl-3-buten-2-ol	C <sub>5</sub> H <sub>10</sub> O	13
Hexyl acetate	C <sub>8</sub> H <sub>16</sub> O <sub>2</sub>	1-Hexanol	C <sub>6</sub> H <sub>14</sub> O	577–584
		2-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	663
		Phenol	C <sub>6</sub> H <sub>6</sub> O	357
1-Hexylnaphthalene	C <sub>16</sub> H <sub>20</sub>	Phenol	C <sub>6</sub> H <sub>6</sub> O	419
Isobutyl formate	C <sub>5</sub> H <sub>10</sub> O <sub>2</sub>	2-Ethyl-1-hexanol	C <sub>8</sub> H <sub>18</sub> O	800
Isoprene	C <sub>5</sub> H <sub>8</sub>	3-Methyl-3-buten-1-ol	C <sub>5</sub> H <sub>10</sub> O	19
Isopropylbenzene	C <sub>9</sub> H <sub>12</sub>	Benzyl alcohol	C <sub>7</sub> H <sub>8</sub> O	608
		3-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	718
		Phenol	C <sub>6</sub> H <sub>6</sub> O	360–369
		2-Phenyl-2-propanol	C <sub>9</sub> H <sub>12</sub> O	869
D-(+)-Limonene	C <sub>10</sub> H <sub>16</sub>	1-Pentanol	C <sub>5</sub> H <sub>12</sub> O	175–178
Linalool	C <sub>10</sub> H <sub>18</sub> O	3,7-Dimethyl-6-octen-1-yn-3-ol	C <sub>10</sub> H <sub>16</sub> O	874
Methoxybenzene	C <sub>7</sub> H <sub>8</sub> O	1-Pentanol	C <sub>5</sub> H <sub>12</sub> O	143–147
2-Methoxyethanol	C <sub>3</sub> H <sub>8</sub> O <sub>2</sub>	1-Pentanol	C <sub>5</sub> H <sub>12</sub> O	111–113
p-Methoxyphenol	C <sub>7</sub> H <sub>8</sub> O <sub>2</sub>	1,2-Dihydroxybenzene <Pyrocatechol>	C <sub>6</sub> H <sub>6</sub> O <sub>2</sub>	433, 434
		4-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	757–760
2-Methoxyphenol	C <sub>7</sub> H <sub>8</sub> O <sub>2</sub>	2-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	651–654
		3-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	708–711
		1-Octanol	C <sub>8</sub> H <sub>18</sub> O	853–855
		Phenol	C <sub>6</sub> H <sub>6</sub> O	334–336
N-Methylacetamide	C <sub>3</sub> H <sub>7</sub> NO	Phenol	C <sub>6</sub> H <sub>6</sub> O	265, 266

Methyl tert-amyl ether (TAME)	C <sub>6</sub> H <sub>14</sub> O	tert-Pentanol	C <sub>5</sub> H <sub>12</sub> O	230–233
		Phenol	C <sub>6</sub> H <sub>6</sub> O	309
3-Methyl-1-butanol	C <sub>5</sub> H <sub>12</sub> O	2-Methyl-1-butanol	C <sub>5</sub> H <sub>12</sub> O	40, 41
2-Methyl-2-butene	C <sub>5</sub> H <sub>10</sub>	tert-Pentanol	C <sub>5</sub> H <sub>12</sub> O	212, 213
2-Methyl-3-buten-2-ol	C <sub>5</sub> H <sub>10</sub> O	2-Methyl-3-butyne-2-ol	C <sub>5</sub> H <sub>8</sub> O	4
Methyl tert-butyl ether (MTBE)	C <sub>5</sub> H <sub>12</sub> O	2,2-Dimethyl-1-propanol	C <sub>5</sub> H <sub>12</sub> O	26–28
		1-Hexanol	C <sub>6</sub> H <sub>14</sub> O	554–556
2-Methylcyclohexanone	C <sub>7</sub> H <sub>12</sub> O	Cyclohexanol	C <sub>6</sub> H <sub>12</sub> O	492
2-Methylcyclohexyl acetate	C <sub>9</sub> H <sub>16</sub> O <sub>2</sub>	2-Methylcyclohexanol <Isomer not specified>	C <sub>7</sub> H <sub>14</sub> O	772–775
Methyldihydropyran <Isomer not specified>	C <sub>6</sub> H <sub>10</sub> O	3-Methyl-3-buten-1-ol	C <sub>5</sub> H <sub>10</sub> O	21
Methylenecyclobutane	C <sub>5</sub> H <sub>8</sub>	2-Methyl-3-buten-2-ol	C <sub>5</sub> H <sub>10</sub> O	11
		3-Methyl-3-buten-1-ol	C <sub>5</sub> H <sub>10</sub> O	20
Methylene tetrahydropyran	C <sub>6</sub> H <sub>10</sub> O	2-Methyl-3-buten-2-ol	C <sub>5</sub> H <sub>10</sub> O	12
		3-Methyl-3-buten-1-ol	C <sub>5</sub> H <sub>10</sub> O	22
Methyl isopropyl ketone	C <sub>5</sub> H <sub>10</sub> O	3-Methyl-2-butanol	C <sub>5</sub> H <sub>12</sub> O	94–96
		tert-Pentanol	C <sub>5</sub> H <sub>12</sub> O	214, 215
1-Methylnaphthalene	C <sub>11</sub> H <sub>10</sub>	Phenol	C <sub>6</sub> H <sub>6</sub> O	406
2-Methylnaphthalene	C <sub>11</sub> H <sub>10</sub>	3-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	732–734
2-Methylpentane	C <sub>6</sub> H <sub>14</sub>	3-Methyl-2-butanol	C <sub>5</sub> H <sub>12</sub> O	100, 101
4-Methyl-2-pentanone	C <sub>6</sub> H <sub>12</sub> O	4-Methyl-2-pentanol	C <sub>6</sub> H <sub>14</sub> O	592–594
4-Methyl-3-penten-2-one	C <sub>6</sub> H <sub>10</sub> O	Phenol	C <sub>6</sub> H <sub>6</sub> O	292, 293
2-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	1,3-Dihydroxybenzene <Resorcinol>	C <sub>6</sub> H <sub>6</sub> O <sub>2</sub>	441–443
		Phenol	C <sub>6</sub> H <sub>6</sub> O	318–326
3-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	Phenol	C <sub>6</sub> H <sub>6</sub> O	327, 328

## Alcohols and Phenols

## Alphabetical Index of Binary Systems

4-Methylphenol	$C_7H_8O$	1,2-Dihydroxybenzene <Pyrocatechol>	$C_6H_6O_2$	429–432
		1,3-Dihydroxybenzene <Resorcinol>	$C_6H_6O_2$	444–446
		2-Methylphenol	$C_7H_8O$	646–650
		3-Methylphenol	$C_7H_8O$	707
		Phenol	$C_6H_6O$	329–333
N-Methyl-2-pyrrolidone	$C_5H_9NO$	3,7-Dimethyl-6- octen-1-yn-3-ol	$C_{10}H_{16}O$	873
		3-Methyl-1-butanol	$C_5H_{12}O$	63
		2-Methyl-3-butyn-2-ol	$C_5H_8O$	3
Naphthalene	$C_{10}H_8$	2-Methylphenol	$C_7H_8O$	671
		3-Methylphenol	$C_7H_8O$	724, 725
		Phenol	$C_6H_6O$	384 385
Nitrobenzene	$C_6H_5NO_2$	2-Methylphenol	$C_7H_8O$	629
		3-Methylphenol	$C_7H_8O$	694
		4-Methylphenol	$C_7H_8O$	751
		Phenol	$C_6H_6O$	276, 277
Nonane	$C_9H_{20}$	Cyclohexanol	$C_6H_{12}O$	502–504
		2-Hexyn-1-ol	$C_6H_{10}O$	450–452
		3-Methyl-3-buten-1-ol	$C_5H_{10}O$	24
		2-Methylphenol	$C_7H_8O$	668–670
		3-Methylphenol	$C_7H_8O$	720–723
		1-Pentanol	$C_5H_{12}O$	164–167
1-Nonene	$C_9H_{18}$	Phenol	$C_6H_6O$	382
1-Octadecanol	$C_{18}H_{38}O$	1-Tetradecanol	$C_{14}H_{30}O$	911
Octane	$C_8H_{18}$	2-Methylphenol	$C_7H_8O$	664–666
		3-Methylphenol	$C_7H_8O$	715, 716
		1-Octanol	$C_8H_{18}O$	861, 862
2-Octanone	$C_8H_{16}O$	1-Hexanol	$C_6H_{14}O$	573–576
Octen-4-al	$C_8H_{14}O$	2-Ethyl-1-hexanol	$C_8H_{18}O$	802
1-Octene	$C_8H_{16}$	Phenol	$C_6H_6O$	356

1,1'-Oxybiscyclohexane	$C_{12}H_{22}O$	Phenol	$C_6H_6O$	411
Pentane	$C_5H_{12}$	tert-Pentanol	$C_5H_{12}O$	216, 217
		Phenol	$C_6H_6O$	272
1-Pentanol	$C_5H_{12}O$	2-Methyl-1-butanol	$C_5H_{12}O$	42
		3-Methyl-1-butanol	$C_5H_{12}O$	64–68
		3-Methyl-2-butanol	$C_5H_{12}O$	97
tert-Pentanol	$C_5H_{12}O$	2-Methyl-1-butanol	$C_5H_{12}O$	43
		3-Methyl-2-butanol	$C_5H_{12}O$	98
		1-Pentanol	$C_5H_{12}O$	123
2-Pentanone	$C_5H_{10}O$	3-Pentanol	$C_5H_{12}O$	194
3-Pentanone	$C_5H_{10}O$	1-Octanol	$C_8H_{18}O$	846
		3-Pentanol	$C_5H_{12}O$	195
Phenol	$C_6H_6O$	3-Methyl-1-butanol	$C_5H_{12}O$	70
		1-Pentanol	$C_5H_{12}O$	125
1-Phenyldodecane	$C_{18}H_{30}$	Phenol	$C_6H_6O$	420
alpha-Phenylethanol	$C_8H_{10}O$	Phenol	$C_6H_6O$	349–352
2-Phenyl-2-propanol	$C_9H_{12}O$	Phenol	$C_6H_6O$	378–381
2-Phenylpropionaldehyde	$C_9H_{10}O$	Phenol	$C_6H_6O$	358, 359
alpha-Pinene	$C_{10}H_{16}$	1-Hexanol	$C_6H_{14}O$	585–587
		1-Pentanol	$C_5H_{12}O$	168–172
beta-Pinene	$C_{10}H_{16}$	1-Pentanol	$C_5H_{12}O$	173, 174
Propanal	$C_3H_6O$	2-Methyl-1-pentanol	$C_6H_{14}O$	590
		tert-Pentanol	$C_5H_{12}O$	207, 208
Propionic acid	$C_3H_6O_2$	1-Pentanol	$C_5H_{12}O$	106
		Phenol	$C_6H_6O$	262, 263
Propionitrile	$C_3H_5N$	2-Methyl-1-pentanol	$C_6H_{14}O$	588, 589
1-Propoxy-2-Propanol	$C_6H_{14}O_2$	1-Hexanol	$C_6H_{14}O$	571



## Alcohols and Phenols

## Alphabetical Index of Binary Systems

Propylbenzene	C <sub>9</sub> H <sub>12</sub>	Phenol	C <sub>6</sub> H <sub>6</sub> O	370–373
Quinoline	C <sub>9</sub> H <sub>7</sub> N	3-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	717
Styrene	C <sub>8</sub> H <sub>8</sub>	Phenol	C <sub>6</sub> H <sub>6</sub> O	338–340
		alpha-Phenylethanol	C <sub>8</sub> H <sub>10</sub> O	789
1,1,1,2-Tetrachloroethane	C <sub>2</sub> H <sub>2</sub> Cl <sub>4</sub>	1-Hexanol	C <sub>6</sub> H <sub>14</sub> O	510
		2-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	621
		3-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	684
		4-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	747
Tetrachloroethylene	C <sub>2</sub> Cl <sub>4</sub>	1-Hexanol	C <sub>6</sub> H <sub>14</sub> O	508
		2-Methyl-1-butanol	C <sub>5</sub> H <sub>12</sub> O	32–34
		3-Methyl-1-butanol	C <sub>5</sub> H <sub>12</sub> O	55
		2-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	619
		3-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	683
		4-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	745
		1-Pentanol	C <sub>5</sub> H <sub>12</sub> O	104
Tetrachloromethane	CCl <sub>4</sub>	1-Decanol	C <sub>10</sub> H <sub>22</sub> O	875–877
		1-Pentanol	C <sub>5</sub> H <sub>12</sub> O	103
		Phenol	C <sub>6</sub> H <sub>6</sub> O	245
Tetradecane	C <sub>14</sub> H <sub>30</sub>	1-Dodecanol	C <sub>12</sub> H <sub>26</sub> O	906
Tetrahydrofuran	C <sub>4</sub> H <sub>8</sub> O	Phenol	C <sub>6</sub> H <sub>6</sub> O	267
1,2,3,4-Tetrahydronaphthalene	C <sub>10</sub> H <sub>12</sub>	2,4-Dimethylphenol	C <sub>8</sub> H <sub>10</sub> O	783–785
		2-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	672–674
		3-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	726, 727
		4-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	766, 767
		Phenol	C <sub>6</sub> H <sub>6</sub> O	386–391
Tin tetrachloride	Cl <sub>4</sub> Sn	Phenol	C <sub>6</sub> H <sub>6</sub> O	242–244
Toluene	C <sub>7</sub> H <sub>8</sub>	2,4-Dimethylphenol	C <sub>8</sub> H <sub>10</sub> O	782
		2,6-Dimethylphenol	C <sub>8</sub> H <sub>10</sub> O	787
		2-Ethyl-1-hexanol	C <sub>8</sub> H <sub>18</sub> O	801
		2-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	642–645
		3-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	703–706

Toluene	$C_7H_8$	4-Methylphenol	$C_7H_8O$	752–756
		Phenol	$C_6H_6O$	311–316
		alpha-Phenylethanol	$C_8H_{10}O$	788
Triacotane	$C_{30}H_{62}$	Phenol	$C_6H_6O$	422
1,1,1-Trichloroethane [R140A]	$C_2H_3Cl_3$	2-Methyl-1-butanol	$C_5H_{12}O$	36
		3-Methylphenol	$C_7H_8O$	685
Trichloroethylene	$C_2HCl_3$	1-Hexanol	$C_6H_{14}O$	509
		2-Methyl-1-butanol	$C_5H_{12}O$	35
		3-Methyl-1-butanol	$C_5H_{12}O$	56
		2-Methylphenol	$C_7H_8O$	620
		4-Methylphenol	$C_7H_8O$	746
		1-Pentanol	$C_5H_{12}O$	105
1,2,3-Trimethylbenzene	$C_9H_{12}$	Phenol	$C_6H_6O$	374, 375
1,2,4-Trimethylbenzene	$C_9H_{12}$	3-Methylphenol	$C_7H_8O$	719
		Phenol $C_6H_6O$	376	377
2,2,4-Trimethylpentane	$C_8H_{18}$	1-Pentanol	$C_5H_{12}O$	159
2,4,4-Trimethyl-2-pentene	$C_8H_{16}$	2-Methyl-3-buten-2-ol	$C_5H_{10}O$	14
n-Undecane	$C_{11}H_{24}$	1-Dodecanol	$C_{12}H_{26}O$	905
		1-Hexadecanol	$C_{16}H_{34}O$	913
		2-Methylphenol	$C_7H_8O$	679–682
		3-Methylphenol	$C_7H_8O$	735–738
		1-Tetradecanol	$C_{14}H_{30}O$	910
Vinyl acetate	$C_4H_6O_2$	3-Methyl-1-butanol	$C_5H_{12}O$	57
m-Xylene	$C_8H_{10}$	Cyclohexanol	$C_6H_{12}O$	494–497
		2-Methylphenol	$C_7H_8O$	657
		3-Methylphenol	$C_7H_8O$	712
		4-Methylphenol	$C_7H_8O$	762
o-Xylene	$C_8H_{10}$	Cyclohexanol	$C_6H_{12}O$	498–500
		2-Methylphenol	$C_7H_8O$	658
		3-Methylphenol	$C_7H_8O$	713
		4-Methylphenol	$C_7H_8O$	763

## Alcohols and Phenols

## Alphabetical Index of Binary Systems

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p-Xylene	$C_8H_{10}$	Cyclohexanol	$C_6H_{12}O$	501
		2-Methylphenol	$C_7H_8O$	659
		3-Methylphenol	$C_7H_8O$	714
		4-Methylphenol	$C_7H_8O$	764

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## Alcohols and Phenols

## Formula Index of Ternary Systems

C <sub>5</sub> H <sub>8</sub> O	2-Methyl-3-butyn-2-ol	C <sub>5</sub> H <sub>10</sub> O	2-Methyl-3-buten-2-ol	C <sub>5</sub> H <sub>12</sub> O	tert-Pentanol	914
C <sub>5</sub> H <sub>12</sub> O	2,2-Dimethyl-1-propanol	C <sub>5</sub> H <sub>12</sub> O	Methyl tert-butyl ether (MTBE)	C <sub>6</sub> H <sub>12</sub> O	3,3-Dimethyl-2-butanone	915-917
C <sub>5</sub> H <sub>12</sub> O	2-Methyl-1-butanol	C <sub>5</sub> H <sub>12</sub> O	tert-Pentanol	C <sub>5</sub> H <sub>12</sub> O	1-Pentanol	918
C <sub>5</sub> H <sub>12</sub> O	3-Methyl-1-butanol	C <sub>5</sub> H <sub>12</sub> O	1-Pentanol	C <sub>6</sub> H <sub>10</sub> O	Cyclohexanone	919
		C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	Acetic acid butyl ester	C <sub>8</sub> H <sub>10</sub>	Ethylbenzene	920, 921
C <sub>5</sub> H <sub>12</sub> O	3-Methyl-2-butanol	C <sub>5</sub> H <sub>10</sub> O	Methyl isopropyl ketone	C <sub>6</sub> H <sub>14</sub>	2-Methylpentane	922, 923
C <sub>5</sub> H <sub>12</sub> O	1-Pentanol	C <sub>5</sub> H <sub>12</sub> O	tert-Pentanol	C <sub>7</sub> H <sub>14</sub> O <sub>2</sub>	Acetic acid 3-methylbutyl ester	924
		C <sub>6</sub> H <sub>6</sub>	Benzene	C <sub>6</sub> H <sub>12</sub>	Cyclohexane	925, 926
		C <sub>6</sub> H <sub>10</sub> O	Cyclohexanone	C <sub>8</sub> H <sub>8</sub> O	Acetophenone	927
		C <sub>6</sub> H <sub>12</sub> O	2-Hexanone	C <sub>7</sub> H <sub>8</sub> O	Methoxybenzene	928-931
		C <sub>6</sub> H <sub>12</sub> O	2-Hexanone	C <sub>9</sub> H <sub>20</sub>	Nonane	932-934
		C <sub>7</sub> H <sub>8</sub> O	Methoxybenzene	C <sub>9</sub> H <sub>20</sub>	Nonane	935-938
		C <sub>8</sub> H <sub>18</sub> O	Dibutyl ether	C <sub>9</sub> H <sub>20</sub>	Nonane	939-942
C <sub>5</sub> H <sub>12</sub> O	3-Pentanol	C <sub>5</sub> H <sub>10</sub> O	2-Pentanone	C <sub>5</sub> H <sub>10</sub> O	3-Pentanone	943
C <sub>5</sub> H <sub>12</sub> O	tert-Pentanol	C <sub>2</sub> H <sub>4</sub> O <sub>2</sub>	Acetic acid	C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	Acetic acid butyl ester	944
		C <sub>6</sub> H <sub>6</sub>	Benzene	C <sub>6</sub> H <sub>12</sub>	Cyclohexane	945
		C <sub>6</sub> H <sub>14</sub>	Hexane	C <sub>6</sub> H <sub>14</sub> O	Methyl tert-amyl ether (TAME)	946
C <sub>6</sub> H <sub>6</sub> O	Phenol	C <sub>3</sub> H <sub>6</sub> O	Acetone	C <sub>9</sub> H <sub>12</sub>	Isopropylbenzene	947-949
		C <sub>3</sub> H <sub>6</sub> O	Acetone	C <sub>10</sub> H <sub>18</sub>	Decalin <Isomer not specified>	950
		C <sub>6</sub> H <sub>7</sub> N	Aniline	C <sub>9</sub> H <sub>12</sub>	1,2,4-Trimethylbenzene	951
		C <sub>6</sub> H <sub>7</sub> N	Aniline	C <sub>10</sub> H <sub>14</sub>	1,2,4,5-Tetramethylbenzene	952
		C <sub>7</sub> H <sub>6</sub> O	Benzaldehyde	C <sub>10</sub> H <sub>8</sub>	Naphthalene	953
		C <sub>7</sub> H <sub>8</sub>	Toluene	C <sub>7</sub> H <sub>16</sub>	Heptane	954
		C <sub>7</sub> H <sub>8</sub> O	2-Methylphenol	C <sub>10</sub> H <sub>8</sub>	Naphthalene	955

C <sub>6</sub> H <sub>6</sub> O	Phenol	C <sub>7</sub> H <sub>8</sub> O	3-Methylphenol	C <sub>10</sub> H <sub>8</sub>	Naphthalene	956
		C <sub>7</sub> H <sub>8</sub> O	4-Methylphenol	C <sub>10</sub> H <sub>8</sub>	Naphthalene	957
C <sub>6</sub> H <sub>6</sub> O <sub>2</sub>	1,2-Dihydroxybenzene <Pyrocatechol>	C <sub>7</sub> H <sub>8</sub> O	4-Methylphenol	C <sub>7</sub> H <sub>8</sub> O <sub>2</sub>	p-Methoxyphenol	958
		C <sub>6</sub> H <sub>12</sub> O	Cyclohexanol	C <sub>4</sub> H <sub>10</sub> O <sub>3</sub>	Diethylene glycol	C <sub>6</sub> H <sub>10</sub> O
C <sub>6</sub> H <sub>12</sub> O	Cyclohexanol	C <sub>6</sub> H <sub>12</sub> O	2-Hexanone	C <sub>9</sub> H <sub>20</sub>	Nonane	960–962
		C <sub>8</sub> H <sub>10</sub>	o-Xylene	C <sub>9</sub> H <sub>20</sub>	Nonane	963–965
		C <sub>6</sub> H <sub>14</sub> O	4-Methyl-2-pentanol	C <sub>6</sub> H <sub>6</sub>	Benzene	C <sub>6</sub> H <sub>12</sub>
C <sub>7</sub> H <sub>8</sub> O	Benzyl alcohol	C <sub>7</sub> H <sub>7</sub> Cl	Benzyl chloride	C <sub>9</sub> H <sub>10</sub> O <sub>2</sub>	Acetic acid benzyl ester	967, 968
C <sub>7</sub> H <sub>8</sub> O	2-Methylphenol	C <sub>6</sub> H <sub>7</sub> N	Aniline	C <sub>10</sub> H <sub>14</sub>	1,2,4,5-Tetramethylbenzene	969
		C <sub>7</sub> H <sub>5</sub> N	Benzonitrile	C <sub>10</sub> H <sub>8</sub>	Naphthalene	970
		C <sub>8</sub> H <sub>10</sub> O	2,6-Dimethylphenol	C <sub>9</sub> H <sub>12</sub> O	2,4,6-Trimethylphenol	971, 972
C <sub>7</sub> H <sub>8</sub> O	3-Methylphenol	C <sub>7</sub> H <sub>5</sub> N	Benzonitrile	C <sub>10</sub> H <sub>8</sub>	Naphthalene	973
		C <sub>9</sub> H <sub>7</sub> N	Isoquinoline	C <sub>9</sub> H <sub>12</sub>	1,2,4-Trimethylbenzene	974
		C <sub>9</sub> H <sub>7</sub> N	Isoquinoline	C <sub>10</sub> H <sub>8</sub>	Naphthalene	975
		C <sub>9</sub> H <sub>7</sub> N	Quinoline	C <sub>9</sub> H <sub>12</sub>	1,2,4-Trimethylbenzene	976
		C <sub>9</sub> H <sub>7</sub> N	Quinoline	C <sub>10</sub> H <sub>8</sub>	Naphthalene	977, 978
		C <sub>9</sub> H <sub>7</sub> N	Quinoline	C <sub>10</sub> H <sub>12</sub>	1,2,3,4-Tetrahydronaphthalene	979–981
		C <sub>9</sub> H <sub>8</sub>	Indene	C <sub>10</sub> H <sub>8</sub>	Naphthalene	982
		C <sub>9</sub> H <sub>12</sub>	1,2,4-Trimethylbenzene	C <sub>10</sub> H <sub>8</sub>	Naphthalene	983
C <sub>8</sub> H <sub>18</sub> O	1-Octanol	C <sub>3</sub> H <sub>7</sub> NO	N,N-Dimethylformamide (DMF)	C <sub>10</sub> H <sub>22</sub>	Decane	984
		C <sub>7</sub> H <sub>8</sub> O <sub>2</sub>	2-Methoxyphenol	C <sub>8</sub> H <sub>10</sub> O <sub>2</sub>	1,2-Dimethoxybenzene	985–987
C <sub>12</sub> H <sub>26</sub> O	1-Dodecanol	C <sub>3</sub> H <sub>7</sub> NO	N,N-Dimethylformamide (DMF)	C <sub>10</sub> H <sub>22</sub>	Decane	988

## Alcohols and Phenols

## Alphabetical Index of Ternary Systems

Benzyl alcohol	C <sub>7</sub> H <sub>8</sub> O	Acetic acid benzyl ester	C <sub>9</sub> H <sub>10</sub> O <sub>2</sub>	Benzyl chloride	C <sub>7</sub> H <sub>7</sub> Cl	967, 968
Cyclohexanol	C <sub>6</sub> H <sub>12</sub> O	Cyclohexanone	C <sub>6</sub> H <sub>10</sub> O	Diethylene glycol	C <sub>4</sub> H <sub>10</sub> O <sub>3</sub>	959
		2-Hexanone	C <sub>6</sub> H <sub>12</sub> O	Nonane	C <sub>9</sub> H <sub>20</sub>	960–962
		Nonane	C <sub>9</sub> H <sub>20</sub>	o-Xylene	C <sub>8</sub> H <sub>10</sub>	963–965
1,2-Dihydroxybenzene <Pyrocatechol>	C <sub>6</sub> H <sub>6</sub> O <sub>2</sub>	p-Methoxyphenol	C <sub>7</sub> H <sub>8</sub> O <sub>2</sub>	4-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	958
2,2-Dimethyl- 1-propanol	C <sub>5</sub> H <sub>12</sub> O	3,3-Dimethyl- 2-butanone	C <sub>6</sub> H <sub>12</sub> O	Methyl tert- butyl ether (MTBE)	C <sub>5</sub> H <sub>12</sub> O	915–917
1-Dodecanol	C <sub>12</sub> H <sub>26</sub> O	Decane	C <sub>10</sub> H <sub>22</sub>	N,N-Dimethyl- formamide (DMF)	C <sub>3</sub> H <sub>7</sub> NO	988
3-Methyl- 1-butanol	C <sub>5</sub> H <sub>12</sub> O	Acetic acid butyl ester	C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	Ethylbenzene	C <sub>8</sub> H <sub>10</sub>	920, 921
		Cyclohexanone	C <sub>6</sub> H <sub>10</sub> O	1-Pentanol	C <sub>5</sub> H <sub>12</sub> O	919
		tert-Pentanol	C <sub>5</sub> H <sub>12</sub> O	1-Pentanol	C <sub>5</sub> H <sub>12</sub> O	918
3-Methyl- 2-butanol	C <sub>5</sub> H <sub>12</sub> O	Methyl isopropyl ketone	C <sub>5</sub> H <sub>10</sub> O	2-Methylpentane	C <sub>6</sub> H <sub>14</sub>	922, 923
2-Methyl-3- butyn-2-ol	C <sub>5</sub> H <sub>8</sub> O	2-Methyl-3-buten-2-ol	C <sub>5</sub> H <sub>10</sub> O	tert-Pentanol	C <sub>5</sub> H <sub>12</sub> O	914
4-Methyl- 2-pentanol	C <sub>6</sub> H <sub>14</sub> O	Benzene	C <sub>6</sub> H <sub>6</sub>	Cyclohexane	C <sub>6</sub> H <sub>12</sub>	966
2-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	Aniline	C <sub>6</sub> H <sub>7</sub> N	1,2,4,5-Tetramethyl- benzene	C <sub>10</sub> H <sub>14</sub>	969
		Benzonitrile	C <sub>7</sub> H <sub>5</sub> N	Naphthalene	C <sub>10</sub> H <sub>8</sub>	970
		2,6-Dimethylphenol	C <sub>8</sub> H <sub>10</sub> O	2,4,6-Trimethylphenol	C <sub>9</sub> H <sub>12</sub> O	971, 972
3-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	Benzonitrile	C <sub>7</sub> H <sub>5</sub> N	Naphthalene	C <sub>10</sub> H <sub>8</sub>	973
		Indene	C <sub>9</sub> H <sub>8</sub>	Naphthalene	C <sub>10</sub> H <sub>8</sub>	982
		Isoquinoline	C <sub>9</sub> H <sub>7</sub> N	Naphthalene	C <sub>10</sub> H <sub>8</sub>	975
		Isoquinoline	C <sub>9</sub> H <sub>7</sub> N	1,2,4-Trimethylbenzene	C <sub>9</sub> H <sub>12</sub>	974
		Naphthalene	C <sub>10</sub> H <sub>8</sub>	Quinoline	C <sub>9</sub> H <sub>7</sub> N	977, 978
		Naphthalene	C <sub>10</sub> H <sub>8</sub>	1,2,4-Trimethylbenzene	C <sub>9</sub> H <sub>12</sub>	983

3-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	Quinoline	C <sub>9</sub> H <sub>7</sub> N	1,2,3,4-Tetrahydro-naphthalene	C <sub>10</sub> H <sub>12</sub>	979–981	
		Quinoline	C <sub>9</sub> H <sub>7</sub> N	1,2,4-Trimethylbenzene	C <sub>9</sub> H <sub>12</sub>	976	
1-Octanol	C <sub>8</sub> H <sub>18</sub> O	Decane	C <sub>10</sub> H <sub>22</sub>	N,N-Dimethyl-formamide (DMF)	C <sub>3</sub> H <sub>7</sub> NO	984	
		1,2-Dimethoxy-benzene	C <sub>8</sub> H <sub>10</sub> O <sub>2</sub>	2-Methoxyphenol	C <sub>7</sub> H <sub>8</sub> O <sub>2</sub>	985–987	
tert-Pentanol	C <sub>5</sub> H <sub>12</sub> O	Acetic acid	C <sub>2</sub> H <sub>4</sub> O <sub>2</sub>	Acetic acid butyl ester	C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	944	
		Benzene	C <sub>6</sub> H <sub>6</sub>	Cyclohexane	C <sub>6</sub> H <sub>12</sub>	945	
		Hexane	C <sub>6</sub> H <sub>14</sub>	Methyl tert-amyl ether (TAME)	C <sub>6</sub> H <sub>14</sub> O	946	
1-Pentanol	C <sub>5</sub> H <sub>12</sub> O	Acetic acid	C <sub>7</sub> H <sub>14</sub> O <sub>2</sub>	tert-Pentanol	C <sub>5</sub> H <sub>12</sub> O	924	
		3-methylbutyl ester		Cyclohexanone	C <sub>6</sub> H <sub>10</sub> O	927	
		Acetophenone		C <sub>8</sub> H <sub>8</sub> O	Cyclohexane	C <sub>6</sub> H <sub>12</sub>	925, 926
		Benzene		C <sub>6</sub> H <sub>6</sub>	Nonane	C <sub>9</sub> H <sub>20</sub>	939–942
		Dibutyl ether		C <sub>8</sub> H <sub>18</sub> O	Methoxybenzene	C <sub>7</sub> H <sub>8</sub> O	928–931
		2-Hexanone		C <sub>6</sub> H <sub>12</sub> O	Nonane	C <sub>9</sub> H <sub>20</sub>	932–934
		2-Hexanone		C <sub>6</sub> H <sub>12</sub> O	Nonane	C <sub>9</sub> H <sub>20</sub>	935–938
Methoxybenzene	C <sub>7</sub> H <sub>8</sub> O						
3-Pentanol	C <sub>5</sub> H <sub>12</sub> O	2-Pentanone	C <sub>5</sub> H <sub>10</sub> O	3-Pentanone	C <sub>5</sub> H <sub>10</sub> O	943	
Phenol	C <sub>6</sub> H <sub>6</sub> O	Acetone	C <sub>3</sub> H <sub>6</sub> O	Decalin <Isomer not specified>	C <sub>10</sub> H <sub>18</sub>	950	
		Acetone	C <sub>3</sub> H <sub>6</sub> O	Isopropylbenzene	C <sub>9</sub> H <sub>12</sub>	947–949	
		Aniline	C <sub>6</sub> H <sub>7</sub> N	1,2,4,5-Tetramethylbenzene	C <sub>10</sub> H <sub>14</sub>	952	
		Aniline	C <sub>6</sub> H <sub>7</sub> N	1,2,4-Trimethylbenzene	C <sub>9</sub> H <sub>12</sub>	951	
		Benzaldehyde	C <sub>7</sub> H <sub>6</sub> O	Naphthalene	C <sub>10</sub> H <sub>8</sub>	953	
		Heptane	C <sub>7</sub> H <sub>16</sub>	Toluene	C <sub>7</sub> H <sub>8</sub>	954	
		2-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	Naphthalene	C <sub>10</sub> H <sub>8</sub>	955	
		3-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	Naphthalene	C <sub>10</sub> H <sub>8</sub>	956	
4-Methylphenol	C <sub>7</sub> H <sub>8</sub> O	Naphthalene	C <sub>10</sub> H <sub>8</sub>	957			



**Alcohols and Phenols****Formula Index of Quaternary Systems**

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$C_5H_{12}O$	1-Pentanol	$C_6H_6$	Benzene	$C_6H_{12}$	Cyclohexane	$C_7H_8O$	Methoxybenzene	989–991
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1-Pentanol	$C_5H_{12}O$	Benzene	$C_6H_6$	Cyclohexane	$C_6H_{12}$	Methoxybenzene	$C_7H_8O$	989-991
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