

## **MARKETS AND PROFITABILITY**

# **Market Analytics: Phenol Chain - 2020**

**July 2020**



This Report was prepared by Nexant, Inc. ("Nexant"). Except where specifically stated otherwise in this Report, the information contained herein is prepared on the basis of information that is publicly available, and contains no confidential third party technical information to the best knowledge of Nexant. Aforesaid information has not been independently verified or otherwise examined to determine its accuracy, completeness or financial feasibility. Neither Nexant, Subscriber nor any person acting on behalf of either assumes any liabilities with respect to the use of or for damages resulting from the use of any information contained in this Report. Nexant does not represent or warrant that any assumed conditions will come to pass.

The Report is submitted on the understanding that the Subscriber will maintain the contents confidential except for the Subscriber's internal use. The Report should not be reproduced, distributed or used without first obtaining prior written consent by Nexant. Each Subscriber agrees to use reasonable effort to protect the confidential nature of the Report.

**Copyright © by Nexant Inc. 2020. All rights reserved.**



## Contents

<b>1</b>	<b>Executive Summary .....</b>	<b>1</b>
1.1	Introduction.....	1
1.2	Propylene Outlook.....	3
1.3	Cumene.....	8
1.4	Phenol .....	11
1.5	Acetone .....	14
1.6	Bisphenol A .....	18
1.7	Polycarbonate .....	21
<b>2</b>	<b>The Propylene and Derivatives Industry .....</b>	<b>24</b>
2.1	Olefins Overview .....	24
2.2	Current Performance of the Propylene Market .....	26
2.2.1	Consumption .....	27
2.2.2	Supply .....	30
2.2.3	Supply, Demand and Trade .....	35
2.2.4	Phenol Chain.....	37
2.2.4.1	Cumene.....	37
2.2.4.2	Phenol .....	37
2.2.4.3	Acetone .....	37
2.2.4.4	Bisphenol A .....	38
2.2.4.5	Polycarbonate .....	38
2.3	Market Coverage.....	38
<b>3</b>	<b>Phenol/Acetone Value Chain and Industry Integration .....</b>	<b>39</b>
3.1	Phenol/Acetone Value Chain .....	39
3.2	Industry Integration .....	41
<b>4</b>	<b>Cumene .....</b>	<b>43</b>
4.1	Global .....	43
4.1.1	Key Developments .....	43
4.1.2	Consumption .....	43
4.1.3	Supply .....	46
4.1.4	Supply, Demand and Trade .....	48
4.2	North America .....	50
4.2.1	Key Developments .....	50
4.2.2	Consumption .....	50
4.2.3	Supply .....	52
4.2.4	Supply, Demand and Trade .....	54
4.3	South America.....	57
4.3.1	Key Developments .....	57
4.3.2	Consumption .....	57
4.3.3	Supply .....	58
4.3.4	Supply, Demand and Trade .....	59



4.4	Western Europe .....	60
4.4.1	Key Developments .....	60
4.4.2	Consumption .....	60
4.4.3	Supply .....	61
4.4.4	Supply, Demand and Trade .....	64
4.5	Central Europe .....	66
4.5.1	Key Developments .....	66
4.5.2	Consumption .....	66
4.5.3	Supply .....	67
4.5.4	Supply, Demand and Trade .....	68
4.6	Eastern Europe .....	69
4.6.1	Key Developments .....	69
4.6.2	Consumption .....	69
4.6.2.1	Russia .....	69
4.6.2.2	Other Eastern Europe .....	69
4.6.3	Supply .....	69
4.6.3.1	Russia .....	69
4.6.3.2	Other Eastern Europe .....	70
4.6.4	Supply, Demand and Trade .....	71
4.6.4.1	Russia .....	71
4.6.4.2	Other Eastern Europe .....	71
4.7	Middle East.....	73
4.7.1	Key Developments .....	73
4.7.2	Consumption .....	73
4.7.3	Supply .....	75
4.7.4	Supply, Demand and Trade .....	76
4.8	Africa .....	77
4.8.1	Consumption .....	77
4.8.2	Supply .....	77
4.8.3	Supply, Demand and Trade .....	77
4.9	Asia Pacific.....	78
4.9.1	Key Developments .....	78
4.9.2	Consumption .....	78
4.9.2.1	China .....	78
4.9.2.2	North-East Asia .....	78
4.9.2.3	South-East Asia .....	79
4.9.2.4	South Asia .....	80
4.9.2.5	Other Asia and Australasia .....	80
4.9.3	Supply .....	82
4.9.3.1	China .....	82
4.9.3.2	North-East Asia .....	82
4.9.3.3	South-East Asia .....	83
4.9.3.4	South Asia .....	83
4.9.3.5	Other Asia and Australasia .....	83



4.9.4	Supply, Demand and Trade .....	87
<b>5</b>	<b>Phenol .....</b>	<b>90</b>
5.1	Global .....	90
5.1.1	Key Developments .....	90
5.1.2	Consumption .....	90
5.1.3	Supply .....	93
5.1.4	Supply, Demand and Trade .....	96
5.2	North America .....	98
5.2.1	Key Developments .....	98
5.2.2	Consumption .....	98
5.2.3	Supply .....	100
5.2.4	Supply, Demand and Trade .....	102
5.3	South America.....	105
5.3.1	Key Developments .....	105
5.3.2	Consumption .....	105
5.3.3	Supply .....	108
5.3.4	Supply, Demand and Trade .....	109
5.4	Western Europe .....	110
5.4.1	Key Developments .....	110
5.4.2	Consumption .....	110
5.4.3	Supply .....	112
5.4.4	Supply, Demand and Trade .....	114
5.5	Central Europe .....	116
5.5.1	Key Developments .....	116
5.5.2	Consumption .....	116
5.5.3	Supply .....	118
5.5.4	Supply, Demand and Trade .....	119
5.6	Eastern Europe .....	120
5.6.1	Key Developments .....	120
5.6.2	Consumption .....	120
5.6.2.1	Russia .....	120
5.6.2.2	Other Eastern Europe .....	121
5.6.3	Supply .....	122
5.6.3.1	Russia .....	122
5.6.3.2	Other Eastern Europe .....	122
5.6.4	Supply, Demand and Trade .....	124
5.6.4.1	Russia .....	124
5.6.4.2	Other Eastern Europe .....	124
5.7	Middle East.....	128
5.7.1	Key Developments .....	128
5.7.2	Consumption .....	128
5.7.3	Supply .....	130
5.7.4	Supply, Demand and Trade .....	132
5.8	Africa .....	134



5.8.1	Key Developments .....	134
5.8.2	Consumption .....	134
5.8.3	Supply .....	136
5.8.4	Supply, Demand and Trade .....	137
5.9	Asia Pacific .....	138
5.9.1	Key Developments .....	138
5.9.2	Consumption .....	138
5.9.2.1	China .....	138
5.9.2.2	North-East Asia .....	140
5.9.2.3	South-East Asia .....	143
5.9.2.4	South Asia .....	145
5.9.2.5	Other Asia and Australasia .....	146
5.9.3	Supply .....	147
5.9.3.1	China .....	147
5.9.3.2	North-East Asia .....	148
5.9.3.3	South-East Asia .....	149
5.9.3.4	South Asia .....	150
5.9.3.5	Other Asia and Australasia .....	150
5.9.4	Supply, Demand and Trade .....	154
<b>6</b>	<b>Acetone .....</b>	<b>1</b>
6.1	Global .....	1
6.1.1	Key Developments .....	1
6.1.2	Consumption .....	1
6.1.2.1	Solvent/Others .....	2
6.1.2.2	Bisphenol A .....	3
6.1.2.3	Methyl Methacrylate .....	3
6.1.2.4	Methyl Isobutyl Ketone .....	3
6.1.2.5	Isopropanol .....	4
6.1.3	Supply .....	6
6.1.4	Supply, Demand and Trade .....	8
6.2	North America .....	10
6.2.1	Key Developments .....	10
6.2.2	Consumption .....	10
6.2.3	Supply .....	12
6.2.4	Supply, Demand and Trade .....	14
6.3	South America .....	17
6.3.1	Key Developments .....	17
6.3.2	Consumption .....	17
6.3.3	Supply .....	19
6.3.4	Supply, Demand and Trade .....	20
6.4	Western Europe .....	21
6.4.1	Key Developments .....	21
6.4.2	Consumption .....	21
6.4.3	Supply .....	23



6.4.4	Supply, Demand and Trade .....	25
6.5	Central Europe .....	26
6.5.1	Key Developments .....	26
6.5.2	Consumption .....	26
6.5.3	Supply .....	27
6.5.4	Supply, Demand and Trade .....	28
6.6	Eastern Europe .....	29
6.6.1	Key Developments .....	29
6.6.2	Consumption .....	29
6.6.2.1	Russia .....	29
6.6.2.2	Other Eastern Europe .....	30
6.6.3	Supply .....	31
6.6.3.1	Russia .....	31
6.6.3.2	Other Eastern Europe .....	32
6.6.4	Supply, Demand and Trade .....	33
6.6.4.1	Russia .....	33
6.6.4.2	Other Eastern Europe .....	33
6.7	Middle East.....	36
6.7.1	Key Developments .....	36
6.7.2	Consumption .....	36
6.7.3	Supply .....	37
6.7.4	Supply, Demand and Trade .....	39
6.8	Africa .....	40
6.8.1	Key Developments .....	40
6.8.2	Consumption .....	40
6.8.3	Supply .....	41
6.8.4	Supply, Demand and Trade .....	43
6.9	Asia Pacific.....	44
6.9.1	Key Developments .....	44
6.9.2	Consumption .....	44
6.9.2.1	China.....	44
6.9.2.2	North-East Asia.....	45
6.9.2.3	South-East Asia .....	48
6.9.2.4	South Asia.....	49
6.9.2.5	Other Asia and Australasia .....	49
6.9.3	Supply .....	51
6.9.3.1	China .....	51
6.9.3.2	North-East Asia .....	52
6.9.3.3	South-East Asia .....	53
6.9.3.4	South Asia .....	53
6.9.3.5	Other Asia and Australasia .....	54
6.9.4	Supply, Demand and Trade .....	57
7	<b>Bisphenol A .....</b>	61
7.1	Global .....	61



7.1.1	Key Developments .....	61
7.1.2	Consumption .....	61
7.1.2.1	Polycarbonate (PC).....	61
7.1.2.2	Epoxy Resin .....	62
7.1.2.3	Others .....	63
7.1.3	Supply .....	64
7.1.4	Supply, Demand and Trade .....	67
7.2	North America .....	69
7.2.1	Key Developments .....	69
7.2.2	Consumption .....	69
7.2.3	Supply .....	71
7.2.4	Supply, Demand and Trade .....	72
7.3	South America.....	75
7.3.1	Key Developments .....	75
7.3.2	Consumption .....	75
7.3.3	Supply .....	76
7.3.4	Supply, Demand and Trade .....	78
7.4	Western Europe .....	79
7.4.1	Key Developments .....	79
7.4.2	Consumption .....	79
7.4.3	Supply .....	81
7.4.4	Supply, Demand and Trade .....	83
7.5	Central Europe .....	84
7.5.1	Key Developments .....	84
7.5.2	Consumption .....	84
7.5.3	Supply .....	85
7.5.4	Supply, Demand and Trade .....	86
7.6	Eastern Europe .....	87
7.6.1	Key Developments .....	87
7.6.2	Consumption .....	87
7.6.2.1	Russia .....	87
7.6.2.2	Other Eastern Europe .....	88
7.6.3	Supply .....	88
7.6.3.1	Russia .....	88
7.6.3.2	Other Eastern Europe .....	88
7.6.4	Supply, Demand and Trade .....	90
7.6.4.1	Russia .....	90
7.6.4.2	Other Eastern Europe .....	90
7.7	Middle East.....	92
7.7.1	Key Developments .....	92
7.7.2	Consumption .....	92
7.7.3	Supply .....	94
7.7.4	Supply, Demand and Trade .....	95
7.8	Africa .....	96



7.8.1	Key Developments .....	96
7.8.2	Consumption .....	96
7.8.3	Supply .....	96
7.8.4	Supply, Demand and Trade .....	97
7.9	Asia Pacific.....	98
7.9.1	Key Developments .....	98
7.9.2	Consumption .....	98
7.9.2.1	China .....	98
7.9.2.2	North-East Asia .....	100
7.9.2.3	South-East Asia .....	102
7.9.2.4	South Asia.....	102
7.9.2.5	Other Asia and Australasia .....	103
7.9.3	Supply .....	105
7.9.3.1	China .....	105
7.9.3.2	North-East Asia .....	106
7.9.3.3	South-East Asia .....	107
7.9.3.4	South Asia.....	108
7.9.3.5	Other Asia and Australasia .....	108
7.9.4	Supply, Demand and Trade .....	112
7.9.4.1	China .....	112
7.9.4.2	North-East Asia .....	112
7.9.4.3	South-East Asia .....	113
7.9.4.4	South Asia.....	113
<b>8</b>	<b>Polycarbonate.....</b>	<b>116</b>
8.1	Global .....	116
8.1.1	Key Developments .....	116
8.1.2	Consumption .....	116
8.1.3	Supply .....	120
8.1.4	Supply, Demand and Trade .....	122
8.2	North America .....	124
8.2.1	Key Developments .....	124
8.2.2	Consumption .....	124
8.2.3	Supply .....	127
8.2.4	Supply, Demand and Trade .....	128
8.3	South America.....	131
8.3.1	Key Developments .....	131
8.3.2	Consumption .....	131
8.3.3	Supply .....	132
8.3.4	Supply, Demand and Trade .....	133
8.4	Western Europe .....	134
8.4.1	Key Developments .....	134
8.4.2	Consumption .....	134
8.4.3	Supply .....	137
8.4.4	Supply, Demand and Trade .....	139



8.5	Central Europe .....	140
8.5.1	Key Developments .....	140
8.5.2	Consumption .....	140
8.5.3	Supply .....	141
8.5.4	Supply, Demand and Trade .....	142
8.6	Eastern Europe .....	143
8.6.1	Key Developments .....	143
8.6.2	Consumption .....	143
8.6.2.1	Russia .....	143
8.6.2.2	Other Eastern Europe .....	145
8.6.3	Supply .....	146
8.6.3.1	Russia .....	146
8.6.3.2	Other Eastern Europe .....	146
8.6.4	Supply, Demand and Trade .....	147
8.6.4.1	Russia .....	147
8.6.4.2	Other Eastern Europe .....	149
8.7	Middle East.....	151
8.7.1	Key Developments .....	151
8.7.2	Consumption .....	151
8.7.3	Supply .....	153
8.7.4	Supply, Demand and Trade .....	154
8.8	Africa .....	155
8.8.1	Key Developments .....	155
8.8.2	Consumption .....	155
8.8.3	Supply .....	156
8.8.4	Supply, Demand and Trade .....	156
8.9	Asia Pacific.....	157
8.9.1	Key Developments .....	157
8.9.2	Consumption .....	157
8.9.2.1	China .....	158
8.9.2.2	North-East Asia .....	160
8.9.2.3	South-East Asia .....	163
8.9.2.4	South Asia .....	168
8.9.2.5	Other Asia and Australasia .....	169
8.9.3	Supply .....	171
8.9.3.1	China .....	171
8.9.3.2	North-East Asia .....	172
8.9.3.3	South-East Asia .....	173
8.9.3.4	South Asia .....	173
8.9.3.5	Other Asia and Australasia .....	173
8.9.4	Supply, Demand and Trade .....	176



## Appendices

<b>A    Methodology .....</b>	<b>181</b>
A.1    Market Dynamics Forecasting Methodology .....	181
A.1.1    Capacity Availability and Forecasting .....	181
A.1.2    End-Use Consumption Forecasting .....	181
A.1.2.1    End-Use Sector Growth .....	182
A.1.2.2    Penetration (New Application Growth).....	182
A.1.2.3    Short-term Influences.....	183
A.1.2.4    Monomer Consumption Forecasting.....	183
A.1.3    Production and Trade Forecasting.....	184
<b>B    The Phenol Industry – Technology .....</b>	<b>185</b>
B.1    Cumene .....	185
B.2    Phenol .....	186
B.3    Acetone .....	187
B.4    Bisphenol A .....	188
B.4.1    HCl Catalyzed Process .....	188
B.4.2    Ion Exchange Resin Process .....	189
B.5    Polycarbonate .....	190

## Figures

Figure 1	Global Propylene Demand, 2019-e .....	28
Figure 2	Global GDP Growth vs Propylene Consumption Growth.....	28
Figure 3	Global Combined Propylene Consumption .....	30
Figure 4	Global Propylene Capacity Share by Marketer in 2019-e .....	33
Figure 5	Regional Propylene Capacity Addition .....	33
Figure 6	Regional Propylene Capacity .....	34
Figure 7	Global Propylene Supply and Demand .....	35
Figure 8	Regional Propylene Net Exports/(Imports).....	36
Figure 9	Phenol/Acetone Value Chain .....	39
Figure 10	Integration of leading producers in phenol/acetone value chain.....	42
Figure 11	Global Cumene Consumption by End-Use, 2019-e .....	44
Figure 12	Global GDP Growth vs Cumene Consumption Growth .....	44
Figure 13	Global Cumene Consumption by Region .....	45
Figure 14	Global Cumene Capacity by Marketer, 2019-e .....	46
Figure 15	Global Cumene Capacity Additions.....	47
Figure 16	Global Cumene Capacity .....	47
Figure 17	Global Cumene Supply, Demand and Trade .....	49
Figure 18	Global Cumene Net Exports (Imports) .....	49
Figure 19	North America Cumene Consumption, 2019-e .....	51
Figure 20	Location of Cumene in North America .....	53
Figure 21	North America Cumene Supply, Demand and Trade.....	55
Figure 22	United States Cumene Supply, Demand and Trade .....	56
Figure 23	Location of Cumene in South America.....	58



Figure 24	South America Cumene Supply, Demand and Trade .....	59
Figure 25	Western Europe Cumene Consumption, 2019-e .....	61
Figure 26	Location of Cumene in Western Europe .....	63
Figure 27	Western Europe Cumene Supply, Demand and Trade.....	65
Figure 28	Location of Cumene in Central Europe .....	67
Figure 29	Central Europe Cumene Supply, Demand and Trade .....	68
Figure 30	Location of Cumene Capacity in Russia .....	70
Figure 31	Russia Cumene Supply, Demand and Trade.....	71
Figure 32	Total Eastern Europe Cumene Supply, Demand and Trade.....	72
Figure 33	Middle East Cumene Consumption, 2019-e .....	74
Figure 34	Location of Cumene in the Middle East.....	75
Figure 35	Middle East Cumene Supply, Demand and Trade.....	76
Figure 36	Asia Pacific Cumene Consumption, 2019-e.....	81
Figure 37	Location of Cumene in China .....	85
Figure 38	Location of Cumene in Japan and South Korea .....	85
Figure 39	Location of Cumene in South-East Asia.....	86
Figure 40	Location of Cumene in India.....	86
Figure 41	Asia Pacific Cumene Supply, Demand and Trade .....	88
Figure 42	China Cumene Supply, Demand and Trade .....	89
Figure 43	Global Phenol Consumption by End-Use, 2019-e .....	92
Figure 44	Global GDP Growth vs Phenol Consumption Growth.....	92
Figure 45	Global Phenol Consumption by Region .....	93
Figure 46	Global Phenol Capacity by Marketer, 2019-e .....	95
Figure 47	Global Phenol Capacity Additions .....	95
Figure 48	Global Phenol Capacity .....	95
Figure 49	Global Phenol Supply, Demand and Trade.....	97
Figure 50	Global Phenol Net Exports (Imports).....	97
Figure 51	North America Phenol Consumption, 2019-e.....	99
Figure 52	Location of Phenol in North America.....	101
Figure 53	North America Phenol Supply, Demand and Trade .....	103
Figure 54	United States Phenol Supply, Demand and Trade .....	104
Figure 55	South America Phenol Consumption, 2019-e .....	107
Figure 56	Location of Phenol in South America .....	108
Figure 57	South America Phenol Supply, Demand and Trade .....	109
Figure 58	Western Europe Phenol Consumption, 2019-e.....	111
Figure 59	Location of Phenol in Western Europe.....	113
Figure 60	Western Europe Phenol Supply, Demand and Trade .....	115
Figure 61	Central Europe Phenol Consumption, 2019-e .....	117
Figure 62	Location of Phenol in Central Europe.....	118
Figure 63	Central Europe Phenol Supply, Demand and Trade .....	119
Figure 64	Russia Phenol Consumption, 2019-e.....	121
Figure 65	Location of Phenol Capacity in Russia.....	123
Figure 66	Russia Phenol Supply, Demand and Trade .....	125
Figure 67	Other Eastern Europe Phenol Supply, Demand and Trade .....	126



Figure 68	Total Eastern Europe Phenol Supply, Demand and Trade .....	127
Figure 69	Middle East Phenol Consumption, 2019-e .....	129
Figure 70	Location of Phenol in the Middle East .....	131
Figure 71	Middle East Phenol Supply, Demand and Trade .....	133
Figure 72	Africa Phenol Consumption, 2019-e .....	135
Figure 73	Location of Phenol Africa .....	136
Figure 74	Africa Phenol Supply, Demand and Trade .....	137
Figure 75	Asia Pacific Phenol Consumption, 2019-e .....	146
Figure 76	Location of Phenol in China .....	152
Figure 77	Location of Phenol in Japan and South Korea .....	153
Figure 78	Location of Phenol in South-East Asia .....	153
Figure 79	Location of Phenol in India .....	154
Figure 80	Asia Pacific Phenol Supply, Demand and Trade .....	158
Figure 81	China Phenol Supply, Demand and Trade .....	159
Figure 82	Global Acetone Consumption by End-Use, 2019-e .....	4
Figure 83	Global GDP Growth vs Acetone Consumption Growth .....	5
Figure 84	Global Acetone Consumption by Region .....	5
Figure 85	Global Acetone Capacity by Marketer, 2019-e .....	7
Figure 86	Global Acetone Capacity Additions .....	7
Figure 87	Global Acetone Capacity .....	7
Figure 88	Global Acetone Supply, Demand and Trade .....	8
Figure 89	Global Acetone Net Exports (Imports) .....	9
Figure 90	North America Acetone Consumption, 2019-e .....	11
Figure 91	Location of Acetone in North America .....	13
Figure 92	North America Acetone Supply, Demand and Trade .....	15
Figure 93	United States Acetone Supply, Demand and Trade .....	16
Figure 94	South America Acetone Consumption, 2019-e .....	18
Figure 95	Location of Acetone in South America .....	19
Figure 96	South America Acetone Supply, Demand and Trade .....	20
Figure 97	Western Europe Acetone Consumption, 2019-e .....	22
Figure 98	Location of Acetone in Western Europe .....	24
Figure 99	Western Europe Acetone Supply, Demand and Trade .....	25
Figure 100	Central Europe Acetone Consumption, 2019-e .....	26
Figure 101	Location of Acetone in Central Europe .....	27
Figure 102	Central Europe Acetone Supply, Demand and Trade .....	28
Figure 103	Russia Acetone Consumption, 2019-e .....	30
Figure 104	Location of Acetone Capacity in Russia .....	32
Figure 105	Russia Acetone Supply, Demand and Trade .....	33
Figure 106	Other Eastern Europe Acetone Supply, Demand and Trade .....	34
Figure 107	Total Eastern Europe Acetone Supply, Demand and Trade .....	35
Figure 108	Middle East Acetone Consumption, 2019-e .....	37
Figure 109	Location of Acetone in the Middle East .....	38
Figure 110	Middle East Acetone Supply, Demand and Trade .....	39
Figure 111	Africa Acetone Consumption, 2019-e .....	41



Figure 112 Location of Acetone Africa .....	42
Figure 113 Africa Acetone Supply, Demand and Trade .....	43
Figure 114 Asia Pacific Acetone Consumption, 2019-e .....	50
Figure 115 Location of Acetone in China .....	55
Figure 116 Location of Acetone in Japan and South Korea .....	56
Figure 117 Location of Acetone in South-East Asia .....	56
Figure 118 Location of Acetone in India .....	57
Figure 119 Asia Pacific Acetone Supply, Demand and Trade .....	59
Figure 120 China Acetone Supply, Demand and Trade .....	60
Figure 121 Global BPA Demand, 2019-e .....	63
Figure 122 Global GDP Growth vs. BPA Consumption Growth .....	63
Figure 123 Global BPA Consumption by Region .....	64
Figure 124 Global BPA Capacity Share by Marketer, 2019-e .....	66
Figure 125 Global BPA Capacity Additions .....	66
Figure 126 Global BPA Capacity .....	66
Figure 127 Global BPA Supply, Demand and Trade .....	68
Figure 128 Global BPA Net Exports(Imports) .....	68
Figure 129 North America BPA Consumption, 2019-e .....	70
Figure 130 Location of BPA Plants in North America .....	72
Figure 131 North America BPA Supply, Demand and Trade .....	73
Figure 132 United States BPA Supply, Demand and Trade .....	74
Figure 133 Location of BPA Plants in South America .....	77
Figure 134 South America BPA Supply, Demand and Trade .....	78
Figure 135 Western Europe BPA Consumption, 2019-e .....	80
Figure 136 Location of BPA Plants in Western Europe .....	82
Figure 137 Western Europe BPA Supply, Demand and Trade .....	83
Figure 138 Central Europe BPA Consumption, 2019-e .....	84
Figure 139 Location of BPA Plants in Central Europe .....	85
Figure 140 Central Europe BPA Supply, Demand and Trade .....	86
Figure 141 Russia BPA Consumption, 2019-e .....	88
Figure 142 Location of BPA Plants in Eastern Europe .....	89
Figure 143 Russia BPA Supply, Demand and Trade .....	90
Figure 144 Total Eastern Europe BPA Supply, Demand and Trade .....	91
Figure 145 Middle East BPA Consumption, 2019-e .....	93
Figure 146 Location of BPA Plants in the Middle East .....	94
Figure 147 Middle East BPA Supply, Demand and Trade .....	95
Figure 148 Africa BPA Supply, Demand and Trade .....	97
Figure 149 Asia Pacific BPA Consumption, 2019-e .....	104
Figure 150 Location of BPA Plants in China .....	110
Figure 151 Location of BPA Plants in North-East Asia .....	111
Figure 152 Location of BPA Plants in South-East Asia .....	111
Figure 153 Asia Pacific BPA Supply, Demand and Trade .....	114
Figure 154 Chinese BPA Supply, Demand and Trade .....	115
Figure 155 Global Polycarbonate Demand, 2019-e .....	118



Figure 156	Global GDP Growth vs. Polycarbonate Consumption Growth .....	118
Figure 157	Global Polycarbonate Consumption by Region .....	119
Figure 158	Global Polycarbonate Capacity Share by Marketer, 2019-e .....	120
Figure 159	Global Polycarbonate Capacity Additions .....	121
Figure 160	Global Polycarbonate Capacity .....	121
Figure 161	Global Polycarbonate Supply, Demand and Trade .....	123
Figure 162	Global Polycarbonate Net Exports(Imports) .....	123
Figure 163	North America Polycarbonate Consumption, 2019-e .....	126
Figure 164	Location of Polycarbonate Plants in North America .....	128
Figure 165	North America Polycarbonate Supply, Demand and Trade .....	129
Figure 166	United States Polycarbonate Supply, Demand and Trade .....	130
Figure 167	South America Polycarbonate Consumption, 2019-e .....	132
Figure 168	South America Polycarbonate Supply, Demand and Trade .....	133
Figure 169	Western Europe Polycarbonate Consumption, 2019-e .....	136
Figure 170	Location of Polycarbonate Plants in Western Europe .....	138
Figure 171	Western Europe Polycarbonate Supply, Demand and Trade .....	139
Figure 172	Central Europe Polycarbonate Consumption, 2019-e .....	141
Figure 173	Central Europe Polycarbonate Supply, Demand and Trade .....	142
Figure 174	Russia Polycarbonate Consumption, 2019-e .....	144
Figure 175	Other Eastern Europe Polycarbonate Consumption, 2019-e .....	145
Figure 176	Location of Polycarbonate In Russia .....	146
Figure 177	Russia Polycarbonate Supply, Demand and Trade .....	148
Figure 178	Other Eastern Europe Polycarbonate Supply, Demand and Trade .....	149
Figure 179	Total Eastern Europe Polycarbonate Supply, Demand and Trade .....	150
Figure 180	Middle East Polycarbonate Consumption, 2019-e .....	152
Figure 181	Location of Polycarbonate Plants in the Middle East .....	153
Figure 182	Middle East Polycarbonate Supply, Demand and Trade .....	154
Figure 183	Africa Polycarbonate Consumption, 2019-e .....	155
Figure 184	Africa Polycarbonate Supply, Demand and Trade .....	156
Figure 185	Asia Pacific Polycarbonate Consumption, 2019-e .....	170
Figure 186	Location of Polycarbonate in China .....	175
Figure 187	Location of Polycarbonate in Japan and South Korea .....	175
Figure 188	Location of Polycarbonate in South-East Asia .....	176
Figure 189	Asia Pacific Polycarbonate Supply, Demand and Trade .....	178
Figure 190	China Polycarbonate Supply, Demand and Trade .....	179
Figure 191	End-Use Consumption Drivers .....	182
Figure 192	Monomer Consumption Drivers .....	183
Figure 193	Trade Considerations .....	184

## Tables

Table 1	Global Cumene Consumption by End-Use .....	44
Table 2	Global Cumene Consumption by Region .....	45
Table 3	Global Cumene Supply, Demand and Trade .....	49



Table 4	North America Cumene Consumption by End-Use.....	51
Table 5	North America Cumene Consumption by Country .....	51
Table 6	Cumene Capacity in North America .....	52
Table 7	North America Cumene Supply, Demand and Trade.....	55
Table 8	United States Cumene Supply, Demand and Trade .....	56
Table 9	South America Cumene Consumption by End-Use .....	57
Table 10	South America Cumene Consumption by Country .....	57
Table 11	Cumene Capacity in South America .....	58
Table 12	South America Cumene Supply, Demand and Trade .....	59
Table 13	Western Europe Cumene Consumption by End-Use.....	61
Table 14	Cumene Capacity in Western Europe .....	62
Table 15	Western Europe Cumene Supply, Demand and Trade.....	65
Table 16	Central Europe Cumene Consumption .....	66
Table 17	Cumene Capacity in Central Europe .....	67
Table 18	Central Europe Cumene Supply, Demand and Trade .....	68
Table 19	Russia Cumene Consumption.....	69
Table 20	Cumene Capacity in Russia .....	70
Table 21	Russia Cumene Supply, Demand and Trade.....	71
Table 22	Total Eastern Europe Cumene Supply, Demand and Trade.....	72
Table 23	Middle East Cumene Consumption by End-Use.....	74
Table 24	Middle East Cumene Consumption by Country .....	74
Table 25	Cumene Capacity in the Middle East .....	75
Table 26	Middle East Cumene Supply, Demand and Trade .....	76
Table 27	Asia Pacific Cumene Consumption by End-Use .....	81
Table 28	Asia Pacific Cumene Consumption by Country .....	81
Table 29	Cumene Capacity in Asia Pacific .....	84
Table 30	Asia Pacific Cumene Supply, Demand and Trade .....	88
Table 31	China Cumene Supply, Demand and Trade .....	89
Table 32	Global Phenol Consumption by End-Use.....	92
Table 33	Global Phenol Consumption by Region .....	93
Table 34	Global Phenol Supply, Demand and Trade.....	97
Table 35	North America Phenol Consumption by End-Use .....	99
Table 36	North America Phenol Consumption by Country .....	99
Table 37	Phenol Capacity in North America .....	101
Table 38	North America Phenol Supply, Demand and Trade .....	103
Table 39	United States Phenol Supply, Demand and Trade .....	104
Table 40	South America Phenol Consumption by End-Use .....	107
Table 41	South America Phenol Consumption by Country .....	107
Table 42	Phenol Capacity in South America.....	108
Table 43	South America Phenol Supply, Demand and Trade .....	109
Table 44	Western Europe Phenol Consumption by End-Use .....	111
Table 45	Phenol Capacity in Western Europe .....	112
Table 46	Western Europe Phenol Supply, Demand and Trade .....	115
Table 47	Central Europe Phenol Consumption.....	117



Table 48	Phenol Capacity in Central Europe .....	118
Table 49	Central Europe Phenol Supply, Demand and Trade.....	119
Table 50	Russia Phenol Consumption .....	121
Table 51	Other Eastern Europe Phenol Consumption .....	121
Table 52	Phenol Capacity in Russia .....	123
Table 53	Russia Phenol Supply, Demand and Trade .....	125
Table 54	Other Eastern Europe Phenol Supply, Demand and Trade .....	126
Table 55	Total Eastern Europe Phenol Supply, Demand and Trade .....	127
Table 56	Middle East Phenol Consumption by End-Use .....	129
Table 57	Middle East Phenol Consumption by Country.....	129
Table 58	Phenol Capacity in the Middle East.....	131
Table 59	Middle East Phenol Supply, Demand and Trade .....	133
Table 60	Africa Phenol Consumption by End-Use .....	135
Table 61	Africa Phenol Consumption by Country .....	135
Table 62	Phenol Capacity in Africa .....	136
Table 63	Africa Phenol Supply, Demand and Trade .....	137
Table 64	Asia Pacific Phenol Consumption by End-Use .....	146
Table 65	Asia Pacific Phenol Consumption by Country .....	146
Table 66	Phenol Capacity in Asia Pacific.....	151
Table 67	Asia Pacific Phenol Supply, Demand and Trade .....	158
Table 68	China Phenol Supply, Demand and Trade.....	159
Table 69	Global Acetone Consumption by End-Use.....	4
Table 70	Global Acetone Consumption by Region .....	5
Table 71	Global Acetone Supply, Demand and Trade.....	8
Table 72	North America Acetone Consumption by End-Use .....	11
Table 73	North America Acetone Consumption by Country .....	11
Table 74	Acetone Capacity in North America .....	13
Table 75	North America Acetone Supply, Demand and Trade .....	15
Table 76	United States Acetone Supply, Demand and Trade .....	16
Table 77	South America Acetone Consumption by End-Use .....	18
Table 78	South America Acetone Consumption by Country.....	18
Table 79	Acetone Capacity in South America.....	19
Table 80	South America Acetone Supply, Demand and Trade .....	20
Table 81	Western Europe Acetone Consumption by End-Use .....	22
Table 82	Acetone Capacity in Western Europe .....	23
Table 83	Western Europe Acetone Supply, Demand and Trade .....	25
Table 84	Central Europe Acetone Consumption.....	26
Table 85	Acetone Capacity in Central Europe .....	27
Table 86	Central Europe Acetone Supply, Demand and Trade.....	28
Table 87	Russia Acetone Consumption .....	30
Table 88	Other Eastern Europe Acetone Consumption .....	30
Table 89	Acetone Capacity in Russia .....	32
Table 90	Russia Acetone Supply, Demand and Trade .....	33
Table 91	Other Eastern Europe Acetone Supply, Demand and Trade .....	34



Table 92	Total Eastern Europe Acetone Supply, Demand and Trade .....	35
Table 93	Middle East Acetone Consumption by End-Use .....	37
Table 94	Middle East Acetone Consumption by Country.....	37
Table 95	Acetone Capacity in the Middle East.....	38
Table 96	Middle East Acetone Supply, Demand and Trade .....	39
Table 97	Africa Acetone Consumption by End-Use .....	41
Table 98	Africa Acetone Consumption by Country .....	41
Table 99	Acetone Capacity in Africa .....	42
Table 100	Africa Acetone Supply, Demand and Trade .....	43
Table 101	Asia Pacific Acetone Consumption by End-Use .....	50
Table 102	Asia Pacific Acetone Consumption by Country.....	50
Table 103	Acetone Capacity in Asia Pacific.....	54
Table 104	Asia Pacific Acetone Supply, Demand and Trade .....	59
Table 105	China Acetone Supply, Demand and Trade .....	60
Table 106	Global BPA Consumption by Derivative.....	63
Table 107	Global BPA Consumption by Region .....	64
Table 108	Global BPA Supply, Demand and Trade.....	68
Table 109	North American BPA Consumption .....	70
Table 110	North America BPA Consumption by Country .....	70
Table 111	BPA Capacity in North America .....	71
Table 112	North America BPA Supply, Demand and Trade .....	73
Table 113	United States BPA Supply, Demand and Trade .....	74
Table 114	South America BPA Consumption .....	75
Table 115	South America BPA Consumption by Country .....	75
Table 116	BPA Capacity in South America.....	76
Table 117	South America BPA Supply, Demand and Trade .....	78
Table 118	Western Europe BPA Consumption .....	80
Table 119	BPA Capacity in Western Europe .....	81
Table 120	Western Europe BPA Supply, Demand and Trade .....	83
Table 121	Central Europe BPA Consumption.....	84
Table 122	BPA Capacity in Central Europe .....	85
Table 123	Central Europe BPA Supply, Demand and Trade .....	86
Table 124	Russia BPA Consumption by End-Use .....	88
Table 125	BPA Capacity in Russia.....	89
Table 126	Russia BPA Supply, Demand and Trade .....	90
Table 127	Total Eastern Europe BPA Supply, Demand and Trade .....	91
Table 128	Middle East BPA Consumption by Derivative .....	93
Table 129	Middle East BPA Consumption by Country.....	93
Table 130	BPA Capacity in the Middle East.....	94
Table 131	Middle East BPA Supply, Demand and Trade .....	95
Table 132	Africa BPA Consumption by End-Use .....	96
Table 133	Africa BPA Consumption by Country .....	96
Table 134	Africa BPA Supply, Demand and Trade .....	97
Table 135	Asia Pacific BPA Consumption by End-Use .....	104



Table 136	Asia Pacific BPA Consumption by Country .....	104
Table 137	BPA Capacity in Asia Pacific.....	109
Table 138	Asia Pacific BPA Supply, Demand and Trade .....	114
Table 139	Chinese BPA Supply, Demand and Trade .....	115
Table 140	Global Polycarbonate Consumption by End-Use .....	118
Table 141	Global Polycarbonate Consumption.....	119
Table 142	Global Polycarbonate Supply, Demand and Trade.....	123
Table 143	North America Polycarbonate Consumption by End-Use .....	126
Table 144	North America Polycarbonate Consumption by Country.....	126
Table 145	Polycarbonate Capacity in North America.....	127
Table 146	North America Polycarbonate Supply, Demand and Trade .....	129
Table 147	United States Polycarbonate Supply, Demand and Trade.....	130
Table 148	South America Polycarbonate Consumption by End-Use.....	132
Table 149	South America Polycarbonate Consumption by Country .....	132
Table 150	South America Polycarbonate Supply, Demand and Trade.....	133
Table 151	Western Europe Polycarbonate Consumption by End-Use .....	136
Table 152	Polycarbonate Capacity in Western Europe .....	137
Table 153	Western Europe Polycarbonate Supply, Demand and Trade .....	139
Table 154	Central Europe Polycarbonate Consumption.....	141
Table 155	Central Europe Polycarbonate Supply, Demand and Trade .....	142
Table 156	Russia Polycarbonate Consumption .....	144
Table 157	Other Eastern Europe Polycarbonate Consumption .....	145
Table 158	Polycarbonate Capacity in Russia.....	146
Table 159	Russia Polycarbonate Supply, Demand and Trade .....	148
Table 160	Other Eastern Europe Polycarbonate Supply, Demand and Trade .....	149
Table 161	Total Eastern Europe Polycarbonate Supply, Demand and Trade .....	150
Table 162	Middle East Polycarbonate Consumption by End-Use .....	152
Table 163	Middle East Polycarbonate Consumption by Country .....	152
Table 164	Polycarbonate Capacity in the Middle East.....	153
Table 165	Middle East Polycarbonate Supply, Demand and Trade .....	154
Table 166	Africa Polycarbonate Consumption by End-Use .....	155
Table 167	Africa Polycarbonate Consumption by Country .....	156
Table 168	Africa Polycarbonate Supply, Demand and Trade .....	156
Table 169	Asia Pacific Polycarbonate Consumption by End-Use.....	170
Table 170	Asia Pacific Polycarbonate Consumption by Country .....	170
Table 171	Polycarbonate Capacity in Asia Pacific.....	174
Table 172	Asia Pacific Polycarbonate Supply, Demand and Trade.....	178
Table 173	China Polycarbonate Supply, Demand and Trade.....	179