



Antiseptics and Disinfectants: *Global Markets to 2022*

December 2017

Shalini Shahani Dewan

Report Code: CHM052D

Table of Contents

Chapter 1: Introduction	1
Study Goals and Objectives.....	1
Reasons for Doing This Study.....	1
Scope of Report.....	1
Information Sources.....	2
Methodology.....	2
Regional Breakdown	2
Analyst's Credentials.....	6
Related BCC Research Reports.....	6
Chapter 2: Summary and Highlights	8
Chapter 3: Market and Technology Background	12
Antiseptics.....	13
Healthcare Antiseptics	13
Consumer Antiseptics.....	14
Food-handler Antiseptics	14
Disinfectants (or Germicides)	14
High-level Disinfectants.....	15
Intermediate-level Disinfectants.....	15
Low-level Disinfectants	15
Differences Between Antiseptics and Disinfectants	16
Modes of Action of Antiseptics and Disinfectants	17
Action on Cell Membrane.....	17
Denaturation of Cellular Proteins	17
Inhibition of Metabolic Reaction by Oxidation of Essential Sulfhydryl Groups of Enzymes	18
Alkylation of Amino, Carboxyl and Hydroxyl Groups	18
Damage to Nucleic Acid.....	18
Factors Affecting the Effectiveness of Antiseptics and/or Disinfectants.....	18
Concentration and Potency.....	18
Microorganism Type and Community Composition	19
Microbial Population Size and Location of Microorganisms.....	19
Biofilms.....	19
Duration of Exposure.....	19
Physical and Chemical Factors	19
Relative Humidity	20
Presence of Organic and Inorganic Matter	20
Age.....	20
Antimicrobial Resistance (AMR)	20
Classification	21
Biguanides and Amidines	22
Phenol and Derivatives.....	23
Quaternary Ammonium Compounds (QACs or Quats)	26
Metals.....	28
Iodine Products	30
Alcohol.....	32
Aldehydes	33

Oxidizing Agents	35
Others	38
Chapter 4: Market Breakdown by Technology Type	41
Market by Type	45
Biguanides and Amidines	46
Phenol and Derivatives	46
Quaternary Ammonium Compounds	47
Oxidizing Agents	47
Alcohols	48
Aldehydes	48
Iodine Products	48
Silver Compounds	48
Other Antiseptics and Disinfectants	49
Market Overview	49
Market Revenue	50
Market Share	54
Chapter 5: Market Breakdown by End User	57
Global Market by Application/Use	58
Market Share	59
Antiseptics and Disinfectants for Domestic Use	59
Antiseptics and Disinfectants for Institutional/Commercial Use	63
Chapter 6: Market Breakdown by Application	76
Market Overview	76
Market Revenue	77
Market Share	78
Market Breakdown by Region on the Basis of Types	79
Biguanides and Amidines	79
Phenol and Derivatives	81
Quaternary Ammonium Compounds	83
Oxidizing Agents	85
Alcohols	87
Aldehydes	89
Iodine Products	91
Silver Compounds	93
Other Antiseptics and Disinfectants	95
Chapter 7: Industry Structure	98
Biguanides and Amidines	98
Market Leaders	98
Market Share	101
Phenol and Derivatives	103
Market Leaders	103
Market Share	104
Quaternary Ammonium Compounds	106
Market Leaders	106
Market Share	109
Oxidizing Agents	111
Market Leaders	111
Market Share	114

Alcohol	115
Market Leaders	115
Market Share	120
Aldehyde	121
Market Leaders	121
Market Share	123
Iodine Products	124
Market Leaders	124
Market Share	125
Silver	126
Market Leaders	126
Market Share	126
Other Types of Antiseptics and Disinfectants	128
Market Leaders	128
Market Share	129
Chapter 8: Patent Review/ New Developments	132
Patent Review	132
Patents by Year	132
Patents by Antiseptic and Disinfectant Type	133
Patents by Company	135
Patents by Country	137
Patents by Assignee	140
New Developments	141
FDA-approved/EPA-registered Antiseptics and Disinfectants	145
Chapter 9: Analysis of Market Opportunities	150
Factors Affecting the Antiseptics and Disinfectants Market	150
Drivers of the Antiseptics and Disinfectants Market	150
Restraints and Challenges in the Antiseptics and Disinfectants Market	151
Advanced Technologies and Platforms for Antiseptics and Disinfectants	152
Accelerated Hydrogen Peroxide (AHP) Technology	152
PerQuat Technology (Synergistic Biofilm Removal and Disinfection Chemistry)	152
PAD Plus Photoactivated Disinfection System	153
Chlorine Dioxide Platform	153
SILVADUR	153
Agion Antimicrobial Technology	153
Collaborations–Mergers and Acquisitions	154
Chapter 10: Company Profiles	157
Appendix: Antiseptics and Disinfectants	194
About BCC Research	196
About BCC Research	197
BCC Membership	197
BCC Custom Research	197

List of Tables

Summary Table: Global Market for Antiseptics and Disinfectants, by Type, Through 2022 (\$ Millions) ...	10
Table 1 Classes of Chemical Disinfectants According to Their Activity Level	16
Table 2 Differences Between Antiseptics and Disinfectants	16
Table 3 Global Market for Antiseptics and Disinfectants, by Type, Through 2022 (\$ Millions)	53
Table 4 Global Market Share of Antiseptics and Disinfectants, by Type, 2016 (%)	54
Table 5 Global Market for Antiseptics and Disinfectants, by Application, Through 2022 (\$ Millions)	58
Table 6 Global Market Share of Antiseptics and Disinfectants, by Application, 2016 (%)	59
Table 7 Global Market for Antiseptics and Disinfectants for Domestic Use, by Region, Through 2022 (\$ Millions)	61
Table 8 Global Market Share of Antiseptics and Disinfectants for Domestic Use, by Region, 2016 (%) ...	62
Table 9 Global Market for Antiseptics and Disinfectants for Institutional/Commercial Use, by Type, Through 2022 (\$ Millions)	64
Table 10 Global Market Share of Antiseptics and Disinfectants for Institutional/ Commercial Use, 2016 (%)	65
Table 11 Global Market for Antiseptics and Disinfectants for Healthcare Use, by Region, Through 2022 (\$ Millions)	68
Table 12 Global Market Share of Antiseptics and Disinfectants for Healthcare Use, by Region, 2016 (%)	69
Table 13 Global Market for Antiseptics and Disinfectants for Industrial and Commercial Use, by Region, Through 2022 (\$ Millions)	72
Table 14 Global Market Share of Antiseptics and Disinfectants for Industrial and Commercial Use, by Region, 2016 (%)	73
Table 15 Global Market for Antiseptics and Disinfectants, by Region, Through 2022 (\$ Millions)	77
Table 16 Global Market Share of Antiseptics and Disinfectants, by Region, 2016 (%)	78
Table 17 Global Market for Biguanides and Amidines, by Region, Through 2022 (\$ Millions)	80
Table 18 Global Market for Phenol and Derivatives, by Region, Through 2022 (\$ Millions)	82
Table 19 Global Market for Quaternary Ammonium Compounds, by Region, Through 2022 (\$ Millions)	84
Table 20 Global Market for Oxidizing Agents, by Region, Through 2022 (\$ Millions)	86
Table 21 Global Market for Alcohols, by Region, Through 2022 (\$ Millions)	88
Table 22 Global Market for Aldehydes, by Region, Through 2022 (\$ Millions)	90
Table 23 Global Market for Iodine Products, by Region, Through 2022 (\$ Millions)	92
Table 24 Global Market for Silver Compounds, by Region, Through 2022 (\$ Millions)	94
Table 25 Global Market for Other Antiseptics and Disinfectants, by Region, Through 2022 (\$ Millions)	96
Table 26 Leading Manufacturers/Suppliers of Biguanide and Amidine–based Antiseptics and Disinfectants, 2016	99
Table 27 Global Market Shares of Manufacturers/Suppliers of Biguanide and Amidine–based Antiseptics and Disinfectants, 2016	102
Table 28 Leading Manufacturers/Suppliers of Phenol and Derivatives–based Antiseptics and Disinfectants, 2016	103
Table 29 Global Market Shares of Manufacturers/Suppliers of Phenol and Derivatives–based Antiseptics and Disinfectants, 2016	105
Table 30 Leading Manufacturers/Suppliers of Quaternary Ammonium Compound–based Antiseptics and Disinfectants, 2016	106
Table 31 Global Market Shares of Manufacturers/Suppliers of Quaternary Ammonium Compound–based Antiseptics and Disinfectants, 2016	109
Table 32 Leading Manufacturers/Suppliers of Oxidizing Agent–based Antiseptics and Disinfectants, 2016	111

Table 33 Global Market Shares of Manufacturers/Suppliers of Oxidizing Agent–based Antiseptics and Disinfectants, 2016	114
Table 34 Leading Manufacturers/Suppliers of Alcohol–based Antiseptics and Disinfectants, 2016	116
Table 35 Global Market Shares of Manufacturers/Suppliers of Oxidizing Agent–based Antiseptics and Disinfectants, 2016	120
Table 36 Leading Manufacturers/Suppliers of Aldehyde-based Antiseptics and Disinfectants, 2016	122
Table 37 Global Market Shares of Manufacturers/Suppliers of Aldehyde-based Antiseptics and Disinfectants, 2016	123
Table 38 Leading Manufacturers/Suppliers of Iodine-based Antiseptics and Disinfectants, 2016	124
Table 39 Global Market Shares of Manufacturers/Suppliers of Iodine-based Antiseptics and Disinfectants, 2016	125
Table 40 Leading Manufacturers/Suppliers of Silver-based Antiseptics and Disinfectants, 2016	126
Table 41 Global Market Shares of Manufacturers/Suppliers of Silver-based Antiseptics and Disinfectants, 2016	127
Table 42 Leading Manufacturers/Suppliers of Other Types of Antiseptics and Disinfectants, 2016	128
Table 43 Global Market Shares of Manufacturers/Suppliers of Other Types of Antiseptics and Disinfectants, 2016	129
Table 44 Number of Significant Patents for Antiseptics and Disinfectants, January 2015–May 2017	133
Table 45 Number of Significant Patents for Antiseptics and Disinfectants, by Type, January 2015–May 2017	134
Table 46 Number of Significant Patents for Antiseptics and Disinfectants, by Company, January 2015–May 2017	135
Table 47 Number of Significant Patents for Antiseptics and Disinfectants, by Country, January 2015–May 2017	137
Table 48 Patent Shares for Antiseptics and Disinfectants, by Country, January 2015–May 2017 (%)	138
Table 49 Number of Patents for Antiseptics and Disinfectants, by Assignee, January 2015–May 2017	140
Table 50 New Developments in Antiseptics and Disinfectants, January 2015–May 2017	141
Table 51 FDA-approved Over-the-Counter (OTC) Antiseptics as of May 2017	145
Table 52 New EPA-registered Disinfectants, January 2014–January 2017	147
Table 53 Abbreviations	194

List of Figures

Summary Figure: Global Market for Antiseptics and Disinfectants, by Type, 2015–2022 (\$ Millions)	10
Figure 1 Global Market for Antiseptics and Disinfectants, by Type, 2015-2022 (\$ Millions)	53
Figure 2 Global Market Share of Antiseptics and Disinfectants, by Type, 2016 (%).....	55
Figure 3 Global Market for Antiseptics and Disinfectants, by Application, 2015–2022 (\$ Millions)	58
Figure 4 Global Market Share of Antiseptics and Disinfectants, by Application, 2016 (%)	59
Figure 5 Global Market for Antiseptics and Disinfectants for Domestic Use, by Region, 2015–2022 (\$ Millions)	62
Figure 6 Global Market Share of Antiseptics and Disinfectants for Domestic Use, by Region, 2016 (%) .	63
Figure 7 Global Market for Antiseptics and Disinfectants for Institutional/Commercial Use, by Type, 2015–2022 (\$ Millions)	64
Figure 8 Global Market Share of Antiseptics and Disinfectants for Institutional/ Commercial Use, 2016 (%)	65
Figure 9 Global Market for Antiseptics and Disinfectants for Healthcare Use, by Region, 2015–2022 (\$ Millions)	68
Figure 10 Global Market Share of Antiseptics and Disinfectants for Healthcare Use, by Region, 2016 (%)	69
Figure 11 Global Market for Antiseptics and Disinfectants for Industrial and Commercial Use, by Region, 2015-2022 (\$ Millions)	73
Figure 12 Global Market Share of Antiseptics and Disinfectants for Industrial and Commercial Use, by Region, 2016 (%)	74
Figure 13 Global Market for Antiseptics and Disinfectants, by Region, 2015–2022 (\$ Millions)	78
Figure 14 Global Market Share of Antiseptics and Disinfectants, by Region, 2016 (%)	79
Figure 15 Global Market for Biguanides and Amidines, by Region, 2015–2022 (\$ Millions)	81
Figure 16 Global Market for Phenol and Derivatives, by Region, 2015–2022 (\$ Millions).....	83
Figure 17 Global Market for Quaternary Ammonium Compounds, by Region, 2015–2022 (\$ Millions) ...	85
Figure 18 Global Market for Oxidizing Agents, by Region, 2015–2022 (\$ Millions)	87
Figure 19 Global Market for Alcohols, by Region, 2015–2022 (\$ Millions)	89
Figure 20 Global Market for Aldehydes, by Region, 2015–2022 (\$ Millions)	91
Figure 21 Global Market for Iodine Products, by Region, 2015–2022 (\$ Millions)	92
Figure 22 Global Market for Silver Compounds, by Region, 2015–2022 (\$ Millions).....	94
Figure 23 Global Market for Other Antiseptics and Disinfectants, by Region, 2015–2022 (\$ Millions)....	96
Figure 24 Global Market Shares of Manufacturers/Suppliers of Biguanide and Amidine–based Antiseptics and Disinfectants, 2016 (%).....	102
Figure 25 Global Market Shares of Manufacturers/Suppliers of Phenol and Derivatives–based Antiseptics and Disinfectants, 2016.....	105
Figure 26 Global Market Shares of Manufacturers/Suppliers of Quaternary Ammonium Compound–based Antiseptics and Disinfectants, 2016 (%)	110
Figure 27 Global Market Shares of Manufacturers/Suppliers of Oxidizing Agent–based Antiseptics and Disinfectants, 2016	115
Figure 28 Global Market Shares of Manufacturers/Suppliers of Oxidizing Agent–based Antiseptics and Disinfectants, 2016	121
Figure 29 Global Market Shares of Manufacturers/Suppliers of Aldehyde-based Antiseptics and Disinfectants, 2016	123
Figure 30 Global Market Shares of Manufacturers/Suppliers of Iodine-based Antiseptics and Disinfectants, 2016	125
Figure 31 Global Market Shares of Manufacturers/Suppliers of Silver-based Antiseptics and Disinfectants, 2016	127

Figure 32 Global Market Shares of Manufacturers/Suppliers of Other Types of Antiseptics and Disinfectants, 2016	130
Figure 33 Number of Significant Patents for Antiseptics and Disinfectants, January 2015–May 2017...	133
Figure 34 Number of Significant Patents for Antiseptics and Disinfectants, by Type, January 2015–May 2017	134
Figure 35 Number of Significant Patents for Antiseptics and Disinfectants, by Company, January 2015–May 2017	136
Figure 36 Number of Significant Patents for Antiseptics and Disinfectants, by Country, January 2015–May 2017	138
Figure 37 Patent Shares for Antiseptics and Disinfectants, by Country, January 2015–May 2017 (%)...	139
Figure 38 Number of Patents for Antiseptics and Disinfectants, by Assignee, January 2015–May 2017	140



About BCC Research

About BCC Research

With our unparalleled 45-year history, BCC Research provides comprehensive analysis of global market sizing, forecasting and industry intelligence, covering markets where advances in science and technology are improving the quality, standard and sustainability of businesses, economies and lives.

BCC Membership

From market sizing and forecasts, to opportunity assessments and competitive analyses, our ever-expanding library gives you the data, insights and intelligence required to ensure your project is a success. Members benefit from ongoing, unlimited access to the category or collections of their choice, and most membership packages pay for themselves within two to three reports being accessed.

Did you buy this report? You may qualify to apply your purchase price toward a full membership. Call 866/285-7215 or e-mail info@bccresearch.com to request a demo.

BCC Custom Research

Our experts provide custom research projects to those working to identify new markets, introduce new products, validate existing market share, analyze competition, and assess the potential for products to impact existing markets. With impressive academic credentials and broad and deep knowledge of global industrial markets, our independent analysts and consultants develop the facts, figures, analysis, and assessments to inform the decisions that will move your company ahead. Confidential inquiries to: custom@bccresearch.com or 781/205-2429.

DISCLAIMER

The information developed in this report is intended to be as reliable as possible at the time of publication and is of a professional nature. This information does not constitute managerial, legal or accounting advice, nor should it be considered as a corporate policy guide, laboratory manual or an endorsement of any product, as much of the information is speculative in nature. BCC Research and the author assume no responsibility for any loss or damage that might result from reliance on the reported information or from its use.

ISBN: 978-1-62296-585-4
December 2017