

EXCIPIENTS IN PHARMACEUTICALS



PHM010H
October 2013

Paul Evers
Project Analyst

ISBN: 1-56965-581-2

bcc | Research
Market Forecasting

BCC Research
49 Walnut Park, Building 2
Wellesley, MA 02481
866-285-7215, 781-489-7301
www.bccresearch.com
Custom Reports:
carol.laverty@bccresearch.com

TABLE OF CONTENTS

TOPIC	PAGE NO.
CHAPTER 1 INTRODUCTION	2
REASON FOR THE STUDY	2
GOALS AND OBJECTIVES	2
AUDIENCE	2
SCOPE OF REPORT	2
METHODOLOGY AND INFORMATION SOURCES	3
ANALYST CREDENTIALS	3
RELATED BCC REPORTS	3
BCC ON-LINE SERVICES	4
DISCLAIMER	4
CHAPTER 2 SUMMARY	6
<i>SUMMARY TABLE GLOBAL EXCIPIENT MARKET BY MATERIAL TYPE, THROUGH 2018 (\$ MILLIONS)</i>	6
<i>SUMMARY FIGURE GLOBAL EXCIPIENT MARKET, 2011-2018 (\$ MILLIONS)</i>	6
CHAPTER 3 OVERVIEW	11
WHAT IS AN EXCIPIENT?	11
THE PHARMACEUTICALS INDUSTRY IN TURMOIL: 2000 TO TODAY	12
THE KNOWLEDGE CRISIS	13
THE NEED FOR NEW EXCIPIENTS	15
A NOTE ABOUT DIRECT COMPRESSION	17
COPROCESSING IS SPLENDID, BUT IT IS NOT ENOUGH	17
QBD AND THE GLOBAL SUPPLY CHAIN CRISIS: TWO TIDAL WAVES	18
HOW AND WHY THE QUALITY APPROACH CAME TO PHARMA	18
THE BASICS OF QBD	21
THE GLOBAL SUPPLY CHAIN CRISIS	24
RECENT REGULATORY MOVES	29
INTERNATIONAL	29
EUROPE	30
CHINA	31
HOW DOES THE WORKFORCE COPE?	32
EXCIPIENTS AND THE RECESSION	32
CHAPTER 4 GLOBAL EXCIPIENT MARKET: SEVERAL BASIC FIGURES	34
<i>FIGURE 1 GLOBAL EXCIPIENT MARKET SHARE BY CATEGORY OF MATERIAL, 2013 (%)</i>	34
<i>FIGURE 2 GLOBAL EXCIPIENT MARKET SHARE BY TYPE OF ORGANIC CHEMICAL, 2013 (%)</i>	34
<i>FIGURE 3 GLOBAL EXCIPIENT MARKET SHARE BY TYPE OF INORGANIC CHEMICAL, 2013 (%)</i>	35
<i>FIGURE 4 GLOBAL EXCIPIENT MARKET SHARE BY TYPE OF USP WATER, 2013 (%)</i>	35
<i>FIGURE 5 GLOBAL EXCIPIENT MARKET SHARE BY FUNCTIONAL USE, 2013 (%)</i>	36
<i>FIGURE 6 GLOBAL EXCIPIENT MARKET SHARE BY TYPE OF DELIVERY SYSTEM, 2013 (%)</i>	37
<i>FIGURE 7 GLOBAL EXCIPIENT MARKET SHARE FOR FINISHED PRODUCTS BY TYPE (RX AND OTC), 2013 (%)</i>	37

TOPIC	PAGE NO.
CHAPTER 5 CHEMICAL COMPOUNDS	40
MARKET SIZE	40
<i>TABLE 1 GLOBAL EXCIPIENT MARKET VALUE BY MATERIAL TYPE, THROUGH 2018 (\$ MILLIONS)</i>	41
<i>TABLE 2 GLOBAL EXCIPIENT MARKET VOLUME BY MATERIAL TYPE, THROUGH 2018 (LBS MILLIONS)</i>	41
ORGANIC CHEMICALS	41
MARKET SIZE FOR ORGANIC CHEMICALS	41
<i>TABLE 3 GLOBAL ORGANIC CHEMICAL EXCIPIENT MARKET VALUE BY TYPE, THROUGH 2018 (\$ MILLIONS)</i>	42
<i>TABLE 4 GLOBAL ORGANIC CHEMICAL EXCIPIENT MARKET VOLUME BY TYPE, THROUGH 2018 (LBS MILLIONS)</i>	42
CARBOHYDRATES	42
Market Size	43
<i>TABLE 5 GLOBAL CARBOHYDRATE EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)</i>	43
<i>TABLE 6 GLOBAL CARBOHYDRATE EXCIPIENT MARKET BY TYPE, THROUGH 2018 (LBS MILLIONS)</i>	43
Celluloses	43
Market Size	43
<i>TABLE 7 GLOBAL CELLULOSE EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)</i>	44
<i>TABLE 8 GLOBAL CELLULOSE EXCIPIENT MARKET BY TYPE, THROUGH 2018 (LBS MILLIONS)</i>	44
Microcrystalline Cellulose	44
Market Size	45
<i>TABLE 9 GLOBAL MCC EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	45
Cellulose Ethers	45
Market Size	46
<i>TABLE 10 GLOBAL CELLULOSE ETHER EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	46
Cellulose Esters	47
Market Size	47
<i>TABLE 11 GLOBAL CELLULOSE ESTER EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	47
Carboxymethyl Cellulose and Croscarmellose Sodium	48
Market Size	48
<i>TABLE 12 GLOBAL CMC AND CROSCARMELLOSE EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	48
Sugars	48
Market Size	48
<i>TABLE 13 GLOBAL SUGAR EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)</i>	48
<i>TABLE 14 GLOBAL SUGAR EXCIPIENT MARKET BY TYPE, THROUGH 2018 (MILLION LBS)</i>	49
Actual Sugars	49
Market Size	49

TOPIC	PAGE NO.
<i>TABLE 15 GLOBAL ACTUAL SUGAR EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)</i>	50
<i>TABLE 16 GLOBAL ACTUAL SUGAR EXCIPIENT MARKET BY TYPE, THROUGH 2018 (LBS MILLIONS)</i>	50
Lactose	50
Market Size	51
<i>TABLE 17 GLOBAL LACTOSE EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	51
Sucrose	51
Market Size	51
<i>TABLE 18 GLOBAL SUCROSE EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	52
Dextrose (Glucose)	52
Market Size	52
<i>TABLE 19 GLOBAL DEXTROSE (GLUCOSE) EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	52
Sugar Alcohols	52
Market Size	53
<i>TABLE 20 GLOBAL SUGAR ALCOHOL (POLYOL) EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)</i>	53
<i>TABLE 21 GLOBAL SUGAR ALCOHOL (POLYOL) EXCIPIENT MARKET BY TYPE, THROUGH 2018 (LBS MILLIONS)</i>	53
Sorbitol	53
Market Size	54
<i>TABLE 22 GLOBAL SORBITOL EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	54
Mannitol	54
Market Size	54
<i>TABLE 23 GLOBAL MANNITOL EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	55
Other Sugar Alcohols	55
Market Size	55
<i>TABLE 24 GLOBAL OTHER SUGAR ALCOHOL EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	55
Maltitol	55
Xylitol	55
Erythritol	56
Isomalt	56
Trehalose	56
Artificial Sweeteners	56
Market Size	56
<i>TABLE 25 GLOBAL ARTIFICIAL SWEETENER EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	57
Aspartame	57
Neotame	57
Acesulfame-K	57
Saccharin	58
Sucralose	58
Starches	58
Market Size	59

TOPIC	PAGE NO.
<i>TABLE 26 GLOBAL STARCHES EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)</i>	59
<i>TABLE 27 GLOBAL STARCHES EXCIPIENT MARKET BY TYPE, THROUGH 2018 (LBS MILLIONS)</i>	59
Dried Starch	59
Market Size	60
<i>TABLE 28 GLOBAL DRIED STARCH EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	60
Modified Starch	60
Market Size	60
<i>TABLE 29 GLOBAL MODIFIED STARCH EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	61
Converted Starch	61
Market Size	61
<i>TABLE 30 GLOBAL CONVERTED STARCH EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	61
PETROCHEMICALS	61
Market Size	62
<i>TABLE 31 GLOBAL PETROCHEMICAL EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)</i>	62
<i>TABLE 32 GLOBAL PETROCHEMICAL EXCIPIENT MARKET BY TYPE, THROUGH 2018 (LBS MILLIONS)</i>	62
Glycols	62
Market Size	63
<i>TABLE 33 GLOBAL GLYCOL EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)</i>	63
<i>TABLE 34 GLOBAL GLYCOL EXCIPIENT MARKET BY TYPE, THROUGH 2018 (LBS MILLIONS)</i>	64
Polyethylene Glycol	64
Market Size	64
<i>TABLE 35 GLOBAL PEG EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	64
Propylene Glycol	65
Market Size	65
<i>TABLE 36 GLOBAL PG EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	65
Povidones	65
Market Size	66
<i>TABLE 37 GLOBAL PVP EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	66
Mineral Hydrocarbons	66
Market Size	66
<i>TABLE 38 GLOBAL MINERAL HYDROCARBON EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)</i>	67
<i>TABLE 39 GLOBAL MINERAL HYDROCARBON EXCIPIENT MARKET BY TYPE, THROUGH 2018 (LBS MILLIONS)</i>	67
Petrolatum	67
Market Size	67
<i>TABLE 40 GLOBAL PETROLATUM EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	68

TOPIC	PAGE NO.
Mineral Waxes	68
Market Size	68
<i>TABLE 41 GLOBAL MINERAL WAX EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	68
Mineral Oils	69
Market Size	69
<i>TABLE 42 GLOBAL MINERAL OIL EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	69
Acrylic Polymers	69
Market Size	70
<i>TABLE 43 GLOBAL ACRYLIC EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	70
Other Petrochemical Materials	70
Market Size	70
<i>TABLE 44 GLOBAL OTHER PETROCHEMICAL EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	71
Antimicrobials	71
Antioxidants	71
Dyes and Lakes	71
<i>TABLE 45 SYNTHETIC COLORANTS IN PHARMACEUTICALS</i>	72
EDTA	73
Flavors	73
Glycine and Glycylglycine	73
Vinyl Polymers	73
Silicones	73
Miscellaneous Synthetic Petrochemicals	74
OLEOCHEMICALS	74
Market Size	74
<i>TABLE 46 GLOBAL OLEOCHEMICAL EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)</i>	75
<i>TABLE 47 GLOBAL OLEOCHEMICAL EXCIPIENT MARKET BY TYPE, THROUGH 2018 (LBS MILLIONS)</i>	75
Fatty Alcohols	75
Market Size	75
<i>TABLE 48 GLOBAL FATTY ALCOHOL EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	75
Glycerin	76
Market Size	76
<i>TABLE 49 GLOBAL GLYCERIN EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	76
Metal Stearates	77
Market Size	77
<i>TABLE 50 GLOBAL METAL STEARATE EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	77
Other Oleochemicals	77
Market Size	78
<i>TABLE 51 GLOBAL OTHER OLEOCHEMICAL EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	78
Natural Waxes	78

TOPIC	PAGE NO.
Beeswax	78
Candelilla Wax	78
Carnauba Wax	78
Cocoa and Shea Butters	79
Lanolin	79
Phospholipids	79
Sodium Lauryl Sulfate	79
Sorbitan	79
Synthetic Glyceryl Esters	79
Vegetable Oils	80
PROTEINS	80
Gelatin	80
Market Size	81
<i>TABLE 52 GLOBAL PROTEINS (GELATIN) EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	81
Albumin	81
OTHER ORGANIC CHEMICALS	81
<i>TABLE 53 GLOBAL OTHER ORGANIC CHEMICAL EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	82
Alcohols	82
Citric Acid	82
Lactic Acid	83
Polysaccharide Gums	83
Shellac	83
INORGANIC CHEMICALS	83
MARKET SIZE	83
<i>TABLE 54 GLOBAL INORGANIC CHEMICAL EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)</i>	84
<i>TABLE 55 GLOBAL INORGANIC CHEMICAL EXCIPIENT MARKET BY TYPE, THROUGH 2018 (LBS MILLIONS)</i>	84
CALCIUM SALTS	84
Market Size	84
<i>TABLE 56 GLOBAL CALCIUM SALT EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)</i>	85
<i>TABLE 57 GLOBAL CALCIUM SALT EXCIPIENT MARKET BY TYPE, THROUGH 2018 (LBS MILLIONS)</i>	85
Calcium Phosphate	85
Market Size	86
<i>TABLE 58 GLOBAL CALCIUM PHOSPHATE EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	86
Calcium Carbonate	86
Market Size	86
<i>TABLE 59 GLOBAL CALCIUM CARBONATE EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	87
Calcium Sulfate	87
Market Size	87
<i>TABLE 60 GLOBAL CALCIUM SULFATE EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	87
HALITES	88

TOPIC	PAGE NO.
Market Size	88
<i>TABLE 61 GLOBAL HALITE EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	88
METAL OXIDES	88
Market Size	89
<i>TABLE 62 GLOBAL METAL OXIDE EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)</i>	89
<i>TABLE 63 GLOBAL METAL OXIDE EXCIPIENT MARKET BY TYPE, THROUGH 2018 (LBS MILLIONS)</i>	89
Titanium Dioxide	89
Market Size	90
<i>TABLE 64 GLOBAL TIO2 EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	90
Iron Oxide	90
Market Size	90
<i>TABLE 65 GLOBAL IRON OXIDE EXCIPIENT MARKET THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	91
SILICATES	91
Market Size	91
<i>TABLE 66 GLOBAL SILICATES EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)</i>	91
<i>TABLE 67 GLOBAL SILICATES EXCIPIENT MARKET BY TYPE, THROUGH 2018 (LBS MILLIONS)</i>	92
Silicon Dioxide	92
Market Size	92
<i>TABLE 68 GLOBAL SILICON DIOXIDE EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	92
Talc	93
Market Size	93
<i>TABLE 69 GLOBAL TALC EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	93
Clay	93
Market Size	93
<i>TABLE 70 GLOBAL CLAY EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	94
OTHER INORGANIC CHEMICALS	94
Market Size	94
<i>TABLE 71 GLOBAL OTHER INORGANIC CHEMICAL EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	94
USP WATER (PHARMACEUTICAL WATER)	95
MARKET SIZE	95
<i>TABLE 72 GLOBAL USP WATER EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS)</i>	96
<i>TABLE 73 GLOBAL USP WATER EXCIPIENT MARKET, THROUGH 2018 (LBS MILLIONS)</i>	96
WATER FOR INJECTIONS	96
Market Size	96
<i>TABLE 74 GLOBAL USP WFI EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	97
PURIFIED WATER	97
Market Size	97

TOPIC	PAGE NO.
<i>TABLE 75 GLOBAL USP PURIFIED WATER EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	97
FUNCTIONAL USES	98
<i>TABLE 76 GLOBAL EXCIPIENT FUNCTIONAL USES MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)</i>	98
<i>TABLE 77 GLOBAL EXCIPIENT FUNCTIONAL USES MARKET BY TYPE, THROUGH 2018 (LBS MILLIONS)</i>	98
FILLERS	99
Market Size	99
<i>TABLE 78 GLOBAL EXCIPIENT FILLER MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)</i>	99
<i>TABLE 79 GLOBAL EXCIPIENT FILLER MARKET VOLUME BY TYPE, THROUGH 2018 (LBS MILLIONS)</i>	100
EMOLLIENTS	100
Market Size	100
<i>TABLE 80 GLOBAL EMOLLIENTS EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)</i>	100
VEHICLES	101
Market Size	101
<i>TABLE 81 GLOBAL VEHICLE EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)</i>	101
<i>TABLE 82 GLOBAL VEHICLE EXCIPIENT MARKET BY TYPE, THROUGH 2018 (LBS MILLIONS)</i>	101
COATINGS	102
Market Size	102
<i>TABLE 83 GLOBAL COATINGS EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)</i>	103
<i>TABLE 84 GLOBAL COATINGS EXCIPIENT MARKET BY TYPE, THROUGH 2018 (LBS MILLIONS)</i>	103
DISINTEGRANTS	104
Market Size	104
<i>TABLE 85 GLOBAL SUPERDISINTEGRANT EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)</i>	104
<i>TABLE 86 GLOBAL SUPERDISINTEGRANT EXCIPIENT MARKET BY TYPE, THROUGH 2018 (LBS MILLIONS)</i>	105
FLAVORS	105
Market Size	105
<i>TABLE 87 GLOBAL FLAVORS EXCIPIENT MARKET VOLUME BY TYPE, THROUGH 2018 (\$ MILLIONS)</i>	105
<i>TABLE 88 GLOBAL FLAVORS EXCIPIENT MARKET VALUE BY TYPE, THROUGH 2018 (LBS MILLIONS)</i>	106
<i>TABLE 89 COMPARISON OF SEVERAL SWEETENERS TO SUCROSE (%)</i>	106
COLORANTS	107
Market Size	107
<i>TABLE 90 GLOBAL COLORANTS EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)</i>	107
<i>TABLE 91 GLOBAL COLORANTS EXCIPIENT MARKET VOLUME BY TYPE, THROUGH 2018 (LBS MILLIONS)</i>	107
OTHER EXCIPIENT FUNCTIONS	108
Tonicity Agents	108

TOPIC	PAGE NO.
Market Size	108
Perfumes	108
Binders	109
Buffers	109
Chelating Agents	109
Compressions Aids	109
Emulsifiers	110
Foam Control Agents	110
Glidants	110
Humectants	110
Lubricants	110
Plasticizers	111
Preservatives	111
Thickeners	111
DELIVERY SYSTEMS	111
MARKET SIZE	112
<i>TABLE 92 GLOBAL EXCIPIENT DELIVERY SYSTEMS MARKET PERCENT SHARE BY DOSAGE FORM, 2013 (%)</i>	112
<i>FIGURE 8 GLOBAL EXCIPIENT DELIVERY SYSTEMS MARKET BY TYPE, PERCENT VALUE</i>	112
INJECTION	113
<i>TABLE 93 TYPICAL INJECTION COMPOSITION (%)</i>	113
Market Size	114
ORAL	115
Solids	115
Market Size	115
<i>TABLE 94 GLOBAL EXCIPIENTS IN ORAL SOLID DELIVERY SYSTEMS MARKET BY TYPE, 2013 (\$ MILLIONS)</i>	115
<i>TABLE 95 GLOBAL EXCIPIENTS IN ORAL SOLID DELIVERY SYSTEMS MARKET BY TYPE, 2013 (LBS MILLIONS)</i>	116
Tablets	116
<i>TABLE 96 TYPICAL TABLET COMPOSITION</i>	116
Market Size	117
<i>TABLE 97 GLOBAL EXCIPIENTS IN TABLETS MARKET BY FUNCTION, 2013</i>	118
Capsules	119
Market Size	120
<i>TABLE 98 EXCIPIENTS IN GELATIN CAPSULES, GLOBAL MARKET BY TYPE, 2013 (\$ MILLIONS/%)</i>	120
Hard Gelatin Capsules	120
<i>TABLE 99 TYPICAL HARD GELATIN CAPSULE COMPOSITION</i>	121
Market Size	121
<i>TABLE 100 GLOBAL EXCIPIENTS IN HARD GELATIN CAPSULES MARKET VALUE BY FUNCTION, 2013 (%)</i>	121
Soft Gelatin Capsules	122
<i>TABLE 101 TYPICAL SOFT GELATIN CAPSULE COMPOSITION</i>	122
Market Size	122
<i>TABLE 102 EXCIPIENTS IN SOFT GELATIN CAPSULES MARKET SHARE BY FUNCTION, 2013 (\$ MILLIONS/LBS MILLIONS)</i>	123
Liquids	123

TOPIC	PAGE NO.
<i>TABLE 103 TYPICAL LIQUID COMPOSITION (%)</i>	124
Market Size	124
<i>TABLE 104 GLOBAL EXCIPIENTS IN LIQUIDS MARKET SHARE BY FUNCTION, 2013 (\$ MILLIONS/LBS MILLIONS)</i>	124
TOPICAL DELIVERY SYSTEMS	125
Market Size	125
<i>TABLE 105 EXCIPIENTS IN TOPICAL DELIVERY SYSTEMS BY TYPE, 2013 (\$ MILLIONS/LBS MILLIONS)</i>	126
<i>TABLE 106 TYPICAL OINTMENT COMPOSITION (%)</i>	126
Creams and Gels	127
<i>TABLE 107 TYPICAL CREAM COMPOSITION (%)</i>	127
Lotions	128
<i>TABLE 108 TYPICAL TOPICAL LOTION COMPOSITION (%)</i>	128
Dermal Powders	128
Solutions	129
ADVANCED DELIVERY SYSTEMS	129
MARKET SIZE	129
CYCLODEXTRINS	129
HYDROGELS	129
IMPLANTS	129
LIPOSOMES	130
MICROPARTICLES	130
MICROSPHERES	130
NANOTECHNOLOGY (NANOPARTICLES)	130
OSMOTIC PUMPS	132
TRANSDERMAL	132
TRANSMUCOSAL	133
Buccal	133
Tablets	133
Capsules	134
Lozenges	134
Particles	134
Thin Strips	135
Inhalation	135
Nasal	135
Pulmonary	136
Ophthalmic	136
Otic	137
Rectal	137
Vaginal	138
FINISHED PRODUCTS	138
MARKET SIZE	138
<i>TABLE 109 GLOBAL EXCIPIENTS IN FINISHED PRODUCTS BY TYPE, 2013 (\$ MILLIONS/LBS MILLIONS)</i>	139
PRESCRIPTION PRODUCTS	139
Market Size	139
Injections	140
Market Size	140

TOPIC	PAGE NO.
Small Molecule Drug Injections	140
Protein Drugs	140
Vaccines	141
Oral	142
Market Size	142
Topical	142
Advanced Drug Delivery Systems	142
OVER-THE-COUNTER PRODUCTS	143
Market Size	143
FINISHED PRODUCT TRENDS	143
Pharmacogenomics	144
Counterfeit/Stolen Drugs	144
INDUSTRY STRUCTURE	144
INDUSTRY ENVIRONMENT	145
MARKET INFLUENCES	145
Pharmaceutical Industry Pressures	145
General Health Trends	145
Healthcare Industry	146
Consumer Demographics	146
IMPORTANT STRATEGIES	146
R&D SPENDING	147
CONSUMER ADVERTISING	147
LEGISLATIVE LOBBYING	147
CONSOLIDATION	147
MULTIPLICITY OF DELIVERY SYSTEMS	147
SUPPLIER LISTS	147
MATERIAL CHOICE DECISIONS	148
DRIVING FORCES	148
MARKET SHARES	148
<i>FIGURE 9 SIMPLIFIED INDUSTRY STRUCTURE</i>	148
RAW MATERIAL SUPPLIERS	149
Organic Chemical Suppliers	149
Carbohydrate Suppliers	149
Cellulose Suppliers	150
<i>FIGURE 10 MARKET SHARE OF MAJOR CELLULOSE SUPPLIERS, 2011 (%)</i>	150
Sugar Suppliers	151
Actual Sugar Suppliers	151
<i>FIGURE 11 MARKET SHARE OF ACTUAL SUGAR EXCIPIENT SUPPLIERS, 2011 (%)</i>	151
Sugar Alcohols (Polyols)	152
<i>FIGURE 12 MARKET SHARE OF MAJOR SUGAR ALCOHOL (POLYOL) EXCIPIENT SUPPLIERS, 2011 (%)</i>	152
Artificial Sweeteners	153
Starch Suppliers	153
<i>FIGURE 13 MARKET SHARE OF MAJOR STARCH EXCIPIENT SUPPLIERS, 2011 (%)</i>	153
Protein Suppliers	154
<i>FIGURE 14 MARKET SHARE OF MAJOR PROTEIN (GELATIN) EXCIPIENT SUPPLIERS, 2011 (%)</i>	154
Petrochemical Suppliers	155

TOPIC	PAGE NO.
Glycol Suppliers	155
<i>FIGURE 15 MARKET SHARE OF MAJOR GLYCOL EXCIPIENT SUPPLIERS, 2011 (%)</i>	155
PVP Suppliers	156
Mineral Hydrocarbon Suppliers	156
Acrylic Suppliers	156
Oleochemical Suppliers	156
<i>FIGURE 16 MARKET SHARE OF MAJOR OLEOCHEMICAL EXCIPIENT SUPPLIERS, 2011 (%)</i>	157
Inorganic Chemical Suppliers	158
Calcium Salts Suppliers	158
<i>FIGURE 17 MARKET SHARE OF MAJOR CALCIUM-BASED EXCIPIENT SUPPLIERS, 2011 (%)</i>	158
Halite Suppliers	159
<i>FIGURE 18 MARKET SHARE OF MAJOR HALITE EXCIPIENT SUPPLIERS, 2011 (%)</i>	159
Metal Oxide Suppliers	160
<i>FIGURE 19 MARKET SHARE OF MAJOR METAL OXIDE EXCIPIENT SUPPLIERS, 2011 (%)</i>	160
Silicate Suppliers	161
USP Water Suppliers	161
<i>FIGURE 20 MARKET SHARE OF MAJOR USP WATER SUPPLIERS, 2011 (%)</i>	161
DISTRIBUTORS/MODIFIERS	162
Distributors	163
<i>TABLE 110 DISTRIBUTOR CATEGORIES</i>	163
Brokers	163
Import/Export Traders	164
Chemical Stocking/Repacking	164
Modifiers	164
<i>TABLE 111 CATEGORIES OF MODIFIERS</i>	164
Contract Development Organizations	165
Contract Coaters	165
END USERS	165
<i>TABLE 112 CATEGORIES OF END USERS</i>	165
Drug Companies	165
Contract Formulators	166
Retail and Hospital Pharmacies	166
Pharmacy Colleges and Other Academic Institutions	166
Other End Users	167
INTERNATIONAL ASPECTS	167
Americas	167
Europe	167
Asia/Pacific Rim	168
Others	168
CHAPTER 6 COMPANY PROFILES	171
ABBOTT LABORATORIES	172
ADM (ARCHER DANIELS MIDLAND CO.)	172
AKZO NOBEL N.V. (ALSO ICI AND NATIONAL STARCH)	173
AMERICHEM PHARMACEUTICAL CORP.	174

TOPIC	PAGE NO.
AMTEX (QUIMICA AMTEX MEXICO)	174
ARLA FOODS A.M.B.A.	175
ASAHI KASEI CORP. (ASAHI KASEI PHARMA)	175
ASHLAND AQUALON FUNCTIONAL INGREDIENTS (AAFI)	176
ASSOCIATED BRITISH FOODS (ABF)	177
BANNER PHARMACAPS, INC.	177
BASF A.G.	178
BAXTER INTERNATIONAL, INC.	180
BLANVER FARMOQUIMICA, LTDA.	181
BRENTAG GROUP	181
BUDENHEIM	182
CABOT CORP.	182
CALUMET SPECIALTY PRODUCTS PARTNERS, LP (PENRECO)	183
CARGILL, INC.	183
CHARLES TENNANT & COMPANY (CANADA) LTD.	184
COGNIS GMBH	185
COLORCON, INC.	185
CORBION	187
COSMETIC SPECIALTIES, INC.	187
CRISTAL GLOBAL (NATIONAL TITANIUM DIOXIDE CO., LTD.)	188
CRODA INTERNATIONAL, PLC	188
CSL BEHRING, LLC	189
CTD, INC.	190
CYDEX PHARMACEUTICALS, INC.	190
DANISCO A/S	191
DOW CHEMICAL CO.	192
DUPONT (E.I. DU PONT DE NEMOURS & CO.)	193
EASTMAN CHEMICAL CO.	194
EVONIK DEGUSSA GMBH (EVONIK INDUSTRIES AG)	195
FERRO CORP.	196
FIBROGEN, INC.	196
FLAVORX INC.	197
FMC CORP.	197
FOREMOST FARMS USA	199
FUJI HEALTH SCIENCE, INC. (FUJI CHEMICAL INDUSTRY CO., LTD.)	200
GATTEFOSSE GROUP	200
GE HEALTHCARE	201
GELITA AG	201
GENERAL CHEMICAL (GENCHEM)	202
GRAIN PROCESSING CORP.	202
GRIFOLS S.A. (LABORATORIOS GRIFOLS S.A.)	203
GTC BIOTHERAPEUTICS, INC.	203
HILMAR CHEESE CO. (HILMAR INGREDIENTS)	204
IMERYS	204
INGREDION INCORPORATED	205
INNOPHOS, INC.	205
INTERNATIONAL SPECIALTY PRODUCTS (ISP)	206

TOPIC	PAGE NO.
J.M. HUBER CORP. (CP KELCO AND HUBER ENGINEERED MATERIALS)	207
CP KELCO	207
HUBER ENGINEERED MATERIALS	207
JOST CHEMICAL CO.	208
JRS PHARMA (AND J. RETTENMAIER)	208
KOSTER KEUNEN HOLLAND B.V.	210
KRAFT FOODS ATLANTIC GELATIN	210
KRONOS WORLDWIDE, INC.	210
LANXESS A.G.	211
LUBRIZOL CORP.	211
LYONDELLBASELL INDUSTRIES	211
AVANTOR PERFORMANCE MATERIALS	212
MEGGLE GMBH	213
MERCK KGAA (AND EMD)	213
MINERALS TECHNOLOGIES, INC. (SPECIALTY MINERALS, INC.)	214
MINGTAI CHEMICAL CO., LTD.	215
MITSUBISHI CHEMICAL PERFORMANCE POLYMERS, INC.	216
MUTCHLER, INC. PHARMACEUTICAL INGREDIENTS	216
NITTA GELATIN, INC.	216
NORDZUCKER AG	217
NOVOZYMES A/S	217
NUSIL TECHNOLOGY	218
NUTRASWEET CO.	218
OMYA A.G.	219
PERRIGO CO.	219
P&G CHEMICALS	220
PMC GLOBAL, INC.	220
PURDUE PHARMA, LP	221
R.T. VANDERBILT COMPANY, INC.	221
RIO TINTO, PLC	222
ROQUETTE FRERES	222
ROUSSELOT S.A.S.	223
ROYAL FRIESLANDCAMPINA N.V.	224
SASOL, LTD. ADR	224
SENSIENT TECHNOLOGIES CORP.	225
SEPPIC S.A.	225
SHEFFIELD PHARMA INGREDIENTS	226
SHELL CHEMICALS (ROYAL DUTCH SHELL)	227
SHIN-ETSU CHEMICAL CO., LTD.	227
SOLVAY RHODIA S.A.	228
SOLVAY S.A.	229
SPI PHARMA, INC.	229
STEPAN CO.	230
STERLING BIOTECH, LTD.	230
TAKEHARA CHEMICAL INDUSTRIAL CO., LTD.	231
TALECRIS BIOTHERAPEUTICS, INC.	231
TATE & LYLE, PLC	231

TOPIC	PAGE NO.
TESSENDERLO GROUP (PB GELATINS)	232
TOMITA PHARMACEUTICAL CO., LTD.	232
USG CORP.	233
VERTELLUS PERFORMANCE MATERIALS, INC. (VPMI)	233
W.R. GRACE & CO.	233
WACKER FINE CHEMICALS (WACKER CHEMIE)	234
WEI MING PHARMACEUTICAL MFG. CO., LTD.	234
WEISHARDT GROUP	235

LIST OF TABLES

TABLE HEADING	PAGE NO.
SUMMARY TABLE GLOBAL EXCIPIENT MARKET BY MATERIAL TYPE, THROUGH 2018 (\$ MILLIONS)	6
TABLE 1 GLOBAL EXCIPIENT MARKET VALUE BY MATERIAL TYPE, THROUGH 2018 (\$ MILLIONS)	41
TABLE 2 GLOBAL EXCIPIENT MARKET VOLUME BY MATERIAL TYPE, THROUGH 2018 (LBS MILLIONS)	41
TABLE 3 GLOBAL ORGANIC CHEMICAL EXCIPIENT MARKET VALUE BY TYPE, THROUGH 2018 (\$ MILLIONS)	42
TABLE 4 GLOBAL ORGANIC CHEMICAL EXCIPIENT MARKET VOLUME BY TYPE, THROUGH 2018 (LBS MILLIONS)	42
TABLE 5 GLOBAL CARBOHYDRATE EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)	43
TABLE 6 GLOBAL CARBOHYDRATE EXCIPIENT MARKET BY TYPE, THROUGH 2018 (LBS MILLIONS)	43
TABLE 7 GLOBAL CELLULOSE EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)	44
TABLE 8 GLOBAL CELLULOSE EXCIPIENT MARKET BY TYPE, THROUGH 2018 (LBS MILLIONS)	44
TABLE 9 GLOBAL MCC EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	45
TABLE 10 GLOBAL CELLULOSE ETHER EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	46
TABLE 11 GLOBAL CELLULOSE ESTER EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	47
TABLE 12 GLOBAL CMC AND CROSCARMELLOSE EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	48
TABLE 13 GLOBAL SUGAR EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)	48
TABLE 14 GLOBAL SUGAR EXCIPIENT MARKET BY TYPE, THROUGH 2018 (MILLION LBS)	49
TABLE 15 GLOBAL ACTUAL SUGAR EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)	50
TABLE 16 GLOBAL ACTUAL SUGAR EXCIPIENT MARKET BY TYPE, THROUGH 2018 (LBS MILLIONS)	50
TABLE 17 GLOBAL LACTOSE EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	51
TABLE 18 GLOBAL SUCROSE EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	52
TABLE 19 GLOBAL DEXTROSE (GLUCOSE) EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	52
TABLE 20 GLOBAL SUGAR ALCOHOL (POLYOL) EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)	53
TABLE 21 GLOBAL SUGAR ALCOHOL (POLYOL) EXCIPIENT MARKET BY TYPE, THROUGH 2018 (LBS MILLIONS)	53
TABLE 22 GLOBAL SORBITOL EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	54
TABLE 23 GLOBAL MANNITOL EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	55
TABLE 24 GLOBAL OTHER SUGAR ALCOHOL EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	55
TABLE 25 GLOBAL ARTIFICIAL SWEETENER EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	57

TABLE HEADING	PAGE NO.
TABLE 26 GLOBAL STARCHES EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)	59
TABLE 27 GLOBAL STARCHES EXCIPIENT MARKET BY TYPE, THROUGH 2018 (LBS MILLIONS)	59
TABLE 28 GLOBAL DRIED STARCH EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	60
TABLE 29 GLOBAL MODIFIED STARCH EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	61
TABLE 30 GLOBAL CONVERTED STARCH EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	61
TABLE 31 GLOBAL PETROCHEMICAL EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)	62
TABLE 32 GLOBAL PETROCHEMICAL EXCIPIENT MARKET BY TYPE, THROUGH 2018 (LBS MILLIONS)	62
TABLE 33 GLOBAL GLYCOL EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)	63
TABLE 34 GLOBAL GLYCOL EXCIPIENT MARKET BY TYPE, THROUGH 2018 (LBS MILLIONS)	64
TABLE 35 GLOBAL PEG EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	64
TABLE 36 GLOBAL PG EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	65
TABLE 37 GLOBAL PVP EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	66
TABLE 38 GLOBAL MINERAL HYDROCARBON EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)	67
TABLE 39 GLOBAL MINERAL HYDROCARBON EXCIPIENT MARKET BY TYPE, THROUGH 2018 (LBS MILLIONS)	67
TABLE 40 GLOBAL PETROLATUM EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	68
TABLE 41 GLOBAL MINERAL WAX EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	68
TABLE 42 GLOBAL MINERAL OIL EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	69
TABLE 43 GLOBAL ACRYLIC EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	70
TABLE 44 GLOBAL OTHER PETROCHEMICAL EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	71
TABLE 45 SYNTHETIC COLORANTS IN PHARMACEUTICALS	72
TABLE 46 GLOBAL OLEOCHEMICAL EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)	75
TABLE 47 GLOBAL OLEOCHEMICAL EXCIPIENT MARKET BY TYPE, THROUGH 2018 (LBS MILLIONS)	75
TABLE 48 GLOBAL FATTY ALCOHOL EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	75
TABLE 49 GLOBAL GLYCERIN EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	76
TABLE 50 GLOBAL METAL STEARATE EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	77
TABLE 51 GLOBAL OTHER OLEOCHEMICAL EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	78

TABLE HEADING	PAGE NO.
TABLE 52 GLOBAL PROTEINS (GELATIN) EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	81
TABLE 53 GLOBAL OTHER ORGANIC CHEMICAL EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	82
TABLE 54 GLOBAL INORGANIC CHEMICAL EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)	84
TABLE 55 GLOBAL INORGANIC CHEMICAL EXCIPIENT MARKET BY TYPE, THROUGH 2018 (LBS MILLIONS)	84
TABLE 56 GLOBAL CALCIUM SALT EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)	85
TABLE 57 GLOBAL CALCIUM SALT EXCIPIENT MARKET BY TYPE, THROUGH 2018 (LBS MILLIONS)	85
TABLE 58 GLOBAL CALCIUM PHOSPHATE EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	86
TABLE 59 GLOBAL CALCIUM CARBONATE EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	87
TABLE 60 GLOBAL CALCIUM SULFATE EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	87
TABLE 61 GLOBAL HALITE EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	88
TABLE 62 GLOBAL METAL OXIDE EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)	89
TABLE 63 GLOBAL METAL OXIDE EXCIPIENT MARKET BY TYPE, THROUGH 2018 (LBS MILLIONS)	89
TABLE 64 GLOBAL TIO2 EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	90
TABLE 65 GLOBAL IRON OXIDE EXCIPIENT MARKET THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	91
TABLE 66 GLOBAL SILICATES EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)	91
TABLE 67 GLOBAL SILICATES EXCIPIENT MARKET BY TYPE, THROUGH 2018 (LBS MILLIONS)	92
TABLE 68 GLOBAL SILICON DIOXIDE EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	92
TABLE 69 GLOBAL TALC EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	93
TABLE 70 GLOBAL CLAY EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	94
TABLE 71 GLOBAL OTHER INORGANIC CHEMICAL EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	94
TABLE 72 GLOBAL USP WATER EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS)	96
TABLE 73 GLOBAL USP WATER EXCIPIENT MARKET, THROUGH 2018 (LBS MILLIONS)	96
TABLE 74 GLOBAL USP WFI EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	97
TABLE 75 GLOBAL USP PURIFIED WATER EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	97
TABLE 76 GLOBAL EXCIPIENT FUNCTIONAL USES MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)	98
TABLE 77 GLOBAL EXCIPIENT FUNCTIONAL USES MARKET BY TYPE, THROUGH 2018 (LBS MILLIONS)	98
TABLE 78 GLOBAL EXCIPIENT FILLER MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)	99

TABLE HEADING	PAGE NO.
TABLE 79 GLOBAL EXCIPIENT FILLER MARKET VOLUME BY TYPE, THROUGH 2018 (LBS MILLIONS)	100
TABLE 80 GLOBAL EMOLLIENTS EXCIPIENT MARKET, THROUGH 2018 (\$ MILLIONS/LBS MILLIONS)	100
TABLE 81 GLOBAL VEHICLE EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)	101
TABLE 82 GLOBAL VEHICLE EXCIPIENT MARKET BY TYPE, THROUGH 2018 (LBS MILLIONS)	101
TABLE 83 GLOBAL COATINGS EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)	103
TABLE 84 GLOBAL COATINGS EXCIPIENT MARKET BY TYPE, THROUGH 2018 (LBS MILLIONS)	103
TABLE 85 GLOBAL SUPERDISINTEGRANT EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)	104
TABLE 86 GLOBAL SUPERDISINTEGRANT EXCIPIENT MARKET BY TYPE, THROUGH 2018 (LBS MILLIONS)	105
TABLE 87 GLOBAL FLAVORS EXCIPIENT MARKET VOLUME BY TYPE, THROUGH 2018 (\$ MILLIONS)	105
TABLE 88 GLOBAL FLAVORS EXCIPIENT MARKET VALUE BY TYPE, THROUGH 2018 (LBS MILLIONS)	106
TABLE 89 COMPARISON OF SEVERAL SWEETENERS TO SUCROSE (%)	106
TABLE 90 GLOBAL COLORANTS EXCIPIENT MARKET BY TYPE, THROUGH 2018 (\$ MILLIONS)	107
TABLE 91 GLOBAL COLORANTS EXCIPIENT MARKET VOLUME BY TYPE, THROUGH 2018 (LBS MILLIONS)	107
TABLE 92 GLOBAL EXCIPIENT DELIVERY SYSTEMS MARKET PERCENT SHARE BY DOSAGE FORM, 2013 (%)	112
TABLE 93 TYPICAL INJECTION COMPOSITION (%)	113
TABLE 94 GLOBAL EXCIPIENTS IN ORAL SOLID DELIVERY SYSTEMS MARKET BY TYPE, 2013 (\$ MILLIONS)	115
TABLE 95 GLOBAL EXCIPIENTS IN ORAL SOLID DELIVERY SYSTEMS MARKET BY TYPE, 2013 (LBS MILLIONS)	116
TABLE 96 TYPICAL TABLET COMPOSITION	116
TABLE 97 GLOBAL EXCIPIENTS IN TABLETS MARKET BY FUNCTION, 2013	118
TABLE 98 EXCIPIENTS IN GELATIN CAPSULES, GLOBAL MARKET BY TYPE, 2013 (\$ MILLIONS/%)	120
TABLE 99 TYPICAL HARD GELATIN CAPSULE COMPOSITION	121
TABLE 100 GLOBAL EXCIPIENTS IN HARD GELATIN CAPSULES MARKET VALUE BY FUNCTION, 2013 (%)	121
TABLE 101 TYPICAL SOFT GELATIN CAPSULE COMPOSITION	122
TABLE 102 EXCIPIENTS IN SOFT GELATIN CAPSULES MARKET SHARE BY FUNCTION, 2013 (\$ MILLIONS/LBS MILLIONS)	123
TABLE 103 TYPICAL LIQUID COMPOSITION (%)	124
TABLE 104 GLOBAL EXCIPIENTS IN LIQUIDS MARKET SHARE BY FUNCTION, 2013 (\$ MILLIONS/LBS MILLIONS)	124
TABLE 105 EXCIPIENTS IN TOPICAL DELIVERY SYSTEMS BY TYPE, 2013 (\$ MILLIONS/LBS MILLIONS)	126
TABLE 106 TYPICAL OINTMENT COMPOSITION (%)	126
TABLE 107 TYPICAL CREAM COMPOSITION (%)	127
TABLE 108 TYPICAL TOPICAL LOTION COMPOSITION (%)	128

TABLE HEADING	PAGE NO.
TABLE 109 GLOBAL EXCIPIENTS IN FINISHED PRODUCTS BY TYPE, 2013 (\$ MILLIONS/LBS MILLIONS)	139
TABLE 110 DISTRIBUTOR CATEGORIES	163
TABLE 111 CATEGORIES OF MODIFIERS	164
TABLE 112 CATEGORIES OF END USERS	165

LIST OF FIGURES

FIGURE TITLE	PAGE NO.
SUMMARY FIGURE GLOBAL EXCIPIENT MARKET, 2011-2018 (\$ MILLIONS)	6
FIGURE 1 GLOBAL EXCIPIENT MARKET SHARE BY CATEGORY OF MATERIAL, 2013 (%)	34
FIGURE 2 GLOBAL EXCIPIENT MARKET SHARE BY TYPE OF ORGANIC CHEMICAL, 2013 (%)	34
FIGURE 3 GLOBAL EXCIPIENT MARKET SHARE BY TYPE OF INORGANIC CHEMICAL, 2013 (%)	35
FIGURE 4 GLOBAL EXCIPIENT MARKET SHARE BY TYPE OF USP WATER, 2013 (%)	35
FIGURE 5 GLOBAL EXCIPIENT MARKET SHARE BY FUNCTIONAL USE, 2013 (%)	36
FIGURE 6 GLOBAL EXCIPIENT MARKET SHARE BY TYPE OF DELIVERY SYSTEM, 2013 (%)	37
FIGURE 7 GLOBAL EXCIPIENT MARKET SHARE FOR FINISHED PRODUCTS BY TYPE (RX AND OTC), 2013 (%)	37
FIGURE 8 GLOBAL EXCIPIENT DELIVERY SYSTEMS MARKET BY TYPE, PERCENT VALUE	112
FIGURE 9 SIMPLIFIED INDUSTRY STRUCTURE	148
FIGURE 10 MARKET SHARE OF MAJOR CELLULOSE SUPPLIERS, 2011 (%)	150
FIGURE 11 MARKET SHARE OF ACTUAL SUGAR EXCIPIENT SUPPLIERS, 2011 (%)	151
FIGURE 12 MARKET SHARE OF MAJOR SUGAR ALCOHOL (POLYOL) EXCIPIENT SUPPLIERS, 2011 (%)	152
FIGURE 13 MARKET SHARE OF MAJOR STARCH EXCIPIENT SUPPLIERS, 2011 (%)	153
FIGURE 14 MARKET SHARE OF MAJOR PROTEIN (GELATIN) EXCIPIENT SUPPLIERS, 2011 (%)	154
FIGURE 15 MARKET SHARE OF MAJOR GLYCOL EXCIPIENT SUPPLIERS, 2011 (%)	155
FIGURE 16 MARKET SHARE OF MAJOR OLEOCHEMICAL EXCIPIENT SUPPLIERS, 2011 (%)	157
FIGURE 17 MARKET SHARE OF MAJOR CALCIUM-BASED EXCIPIENT SUPPLIERS, 2011 (%)	158
FIGURE 18 MARKET SHARE OF MAJOR HALITE EXCIPIENT SUPPLIERS, 2011 (%)	159
FIGURE 19 MARKET SHARE OF MAJOR METAL OXIDE EXCIPIENT SUPPLIERS, 2011 (%)	160
FIGURE 20 MARKET SHARE OF MAJOR USP WATER SUPPLIERS, 2011 (%)	161