Global Astaxanthin Market – Sources, Technologies and Applications

The report reviews, analyzes and projects the global market for Astaxanthin for the period 2010-2020. The report also reviews production technologies, raw material sources and applications.

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SUMMARY

Astaxanthin has been widely used in aquaculture industry for pigmentation of salmon, trout and shrimps; used for its antioxidant and other health benefits in nutraceutical industry; used in cosmetics for its skin care and anti-aging properties; and also used for fortification of foods and beverages. On commercial scale, astaxanthin is currently produced through chemical synthesis and also derived from natural sources such as Phaffia yeast, Paracoccus bacteria, shrimp bi-products and Haematococcus pluvialis (H. pluvialis) microalgae, with the current major natural source of astaxanthin being the Haematococcus pluvialis microalgae.

In recent years, there has been a growing trend toward using natural ingredients in all forms of food nutrients including the nutraceutical and cosmetic markets, resulting from increasing concerns for consumer safety and regulatory issues over the introduction of synthetic chemicals into the human food chain. The demand for natural astaxanthin derived from Haematococcus pluvialis algae in the global market has been “sky-rocketing” in recent years owing to increasing consumer awareness of its health benefits.

Global market for both synthetic and natural source astaxanthin in aqua feed, nutraceuticals, cosmetics and food & beverages is estimated at 280 metric tons valued at US$447 million in 2014, is further projected to reach 670 metric tons valued at US$1.1 billion by 2020. Synthetic astaxanthin, astaxanthin rich Phaffia yeast and Paracoccus bacteria are predominantly used in the aquaculture sector, while the astaxanthin derived from H. pluvialis microalgae is the main source for human applications such as dietary supplements, cosmetics and food & beverages.

Astaxanthin products analyzed in this study include Synthetic Astaxanthin, Haematococcus pluvialis Microalgae Astaxanthin and astaxanthin rich Paracoccus bacteria. End-use application markets covered in the report are Aqua Feed, Nutraceuticals, Cosmetics and Food & Beverages. The report reviews, analyses and projects the astaxanthin market for global and the regional markets including North America, South America, Europe, Japan, Asia-Pacific (excluding Japan) and Rest of World. The report also provides a special focus on various astaxanthin production technologies employed by key market players, including Chemical Synthesis; Microalgae Cultivation, Harvesting, Drying and Astaxanthin Extraction; and Bacteria Fermentation.

Global Astaxanthin Market Overview (2010-2020) in USD Million
SAMPLE COMPANY PROFILE

ALGATECHNOLOGIES LTD. (ISRAEL)
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Business Profile

Algatechnologies Ltd is a leading commercial cultivator of microalgae that was established in 1998 and has considerable expertise in its chosen field of activity. The company has leadership standing in manufacturing and distributing AstaPure® branded premium natural astaxanthin, which forms a highly potent antioxidant that has been derived from the microalga, Haematococcus pluvialis. Algatechnologies' location in the Arava desert of Israel, having a stable climate and high light intensity, places it ideally in its endeavor of cultivating algae. The company's astaxanthin production involves a novel process, whereby the final product AstaPure® is supplied to the cosmetic, food & beverage and nutrition sectors. Algatechnologies has a worldwide presence, with the company's sales organization offering services to over 30 countries using a wide-ranging network of exclusive distributors, as also through a direct sales network that caters to global clients.

Algatechnologies has adopted the utilization of a closed tubular and eco-friendly cultivation system for producing its AstaPure® natural astaxanthin. This technology enables a highly controlled cultivation system, which eliminates foreign objects, agricultural residues and microbial contamination being introduced into the growing medium. The company has been associated with Ben-Gurion University of the Negev, Israel, since 1998 with the aim of developing and achieving its microalgae cultivation technologies founded on closed and semi-closed reactors. Algatechnologies employs an exclusive and proprietary closed system that includes a modular arrangement of tubular photo-bioreactors, with the entire closed system being based on existing 300 km long glass tubes covering an area of 10 acres of desert land. This computerized, controlled, connected and automatic astaxanthin oleoresin extraction technology has been outsourced to third-party contractors, who employ the supercritical CO₂ extraction process.

KEY PLAYERS PROFILED

Algatechnologies Ltd.
BASF SE
Beijing Gingko Group (BGG) Biological Technology Co Ltd
Biogenic Co Ltd
Cyanotech Corporation
DSM NV
Fenchem Biotek Ltd
Fuji Chemical Industry Co Ltd (Astareal Co Ltd)
Igene Biotechnology, Inc.
Jingzhou Natural Astaxanthin Inc.
JX Nippon Oil & Energy Corporation
Parry Nutraceuticals Ltd.
Pigmentos Naturales SA
Supreme Biotechnologies NZ Ltd
Valensa International (U. S. Nutraceuticals LLC)
Zhejiang NHU Co Ltd

SAMPLE TABLE/CHART

2014 Global Haematococcus pluvialis Microalgae Astaxanthin Market Trends by End-use Application in Metric Tons

Global Paracoccus carotinifaciens Bacteria Astaxanthin Market Overview 2020 by Geographic Region - Europe, Japan, North America and Chile in USD Million
TABLE OF CONTENTS

PART A: GLOBAL MARKET PERSPECTIVE ............ 1
1. INTRODUCTION ............................................. 1
   1.1 Market Overview ........................................ 1
   1.1.1 Astaxanthin Market .................................. 1
   1.1.2 Global Sources Astaxanthin Market ................. 1
   1.1.3 Global Technologies Astaxanthin Market .......... 1
   1.1.4 Global Applications Astaxanthin Market .......... 1
   1.1.5 Safety and Toxicology Astaxanthin Market ....... 1
   1.1.6 Market Segmentation Astaxanthin Market ......... 1
   1.1.7 Future Trends Astaxanthin Market .................. 1

PART B: ASTAXANTHIN SOURCES, TECHNOLOGIES AND APPLICATIONS ............. 31
2. INTRODUCTION ............................................. 31
2.1 Astaxanthin Production .................................. 31
   2.1.1 DSM (Roche) Synthesis Process ................. 31
   2.1.2 Angstrom Laboratories (ALIMTEC (CHILE)) ....... 31
   2.1.3 Haematococcus Microalgae Astaxanthin Production ... 31
   2.1.4 Haematococcus Microalgae Astaxanthin Production ... 31
   2.1.5 Haematococcus Microalgae Astaxanthin Production ... 31
   2.1.6 Haematococcus Microalgae Astaxanthin Production ... 31
2.2 Astaxanthin Production Technologies ............... 31
   2.2.1 Synthetic Astaxanthin Production ........................ 31
   2.2.2 Natural Source Astaxanthin Production ............... 31
   2.2.3 Synthetic Production .................................... 31
   2.2.4 Natural Production ....................................... 31
   2.2.5 Patents for Astaxanthin ................................ 31

3. MARKET DEVELOPMENT .................................... 101
   3.1 Natural Astaxanthin Producers Ramping Up ......... 101
   3.2 Astaxanthin Market Applications ....................... 101

4. INDUSTRY LANDSCAPE .................................... 104
   4.1 Astaxanthin Production Capacities ..................... 104
   4.2 Astaxanthin Market Applications ....................... 104
   4.3 Astaxanthin Market Applications ....................... 104
   4.4 Astaxanthin Market Applications ....................... 104

5. KEY MARKET TRENDS ........................................ 101
   5.1 Astaxanthin Market Trends .............................. 101
   5.2 Astaxanthin Market Trends ............................... 101
   5.3 Astaxanthin Market Trends ............................... 101

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Mar 2015 | 316 Pages | 128 Charts | Price $4050
AlgaBiotech Offers Astaxanthin for Personal Care Products ................................................. 170
Fenchem’s AstaMarin Product Increases Sales ...... 170
Fenchem Receives Approval for its AstaMarin Product ............................................................. 170
Algaltechnologies Increases Presence in Ireland and the UK ....................................................... 170
Algaltechnologies in an R&D Agreement with SCHOTT AG ...................................................... 171
Algaetech International Undertakes Development of Astaxanthin Facility ..................................... 171
Capsugel in Collaboration with Cardax ...................... 171
AstaReal Obtains Canadian Product License Approval for Astaxanthin ........................................... 171
EFSÄ’s Opinion on AstaREAL® Ambiguous .......... 172
Heliae and Sincere Corp Form a Joint Venture .......... 172
AstaReal Gif-R-Done Energy Drink Launched ......... 172
Cawthron Institute Researchers Develop Smart Technology for Enhancing Algae Production .......... 173
MicroAlgae Completes Successful Batch-Production of Astaxanthin from Haematococcus pluvialis ......... 173
Avoca and Synthetic Genomics Enter into a Supply Agreement ............................................... 173
AstaReal Increases Natural Astaxanthin Production Capacity ..................................................... 173
Algeona Obtains Funding to Support Algae Production ................................................................. 173
Algaltechnologies’ AstaPure® 20% Natural Astaxanthin Oleoresin Launched ............................... 174
EID Parry Acquires Aliment SA ............................................. 174
Valensa’s ZanthinEX® Astaxanthin Launched ............ 174
Algaltechnologies Enhances Production of Natural Astaxanthin .................................................. 175
Contract Biotics Increases Algae Production Units . 175
Piveg, Inc Vertically Integrates Operations .......... 175
Fenchem Increases Natural Astaxanthin Supply ...... 175
Piveg Inc Introduces AstaMarine® Natural Astaxanthin ................................................................. 176
Natural Algae Astaxanthin Association Established .................. 176
DSM Launches New Form of AstaSana™ Astaxanthin Product .................................................... 176
BGG’s Astaxanthin Plant Reaches Full Capacity ...... 176
Algaltechnologies’ AstaPure® Offered with Extended Shelf Life ..................................................... 177
Guangdong Hairong Environmental Protection Technology Co LTD (CHINA) .................................. 152
Heliae Development LLC (UNITED STATES) .......... 153
MAI TROPICAL ALGAE FARM LLC (UNITED STATES) ......................................................... 154
MBD ENERGY LIMITED (AUSTRALIA) ................. 155
MICROAS (NORWAY) ............................................. 155
FRAUHOFER INSTITUTE FOR INTERFACIAL ENGINEERING AND BIOTECHNOLOGY (IGB) (GERMANY) (GERMANY) .......................................................... 157
Subitec GmbH (Germany) ...................................... 158
TIANJIN NORLAND BIOTECH CO LTD (CHINA) .......................................................... 159
Extraction and Other Services .............................. 160
ALGAEBIOTECH (THE NETHERLANDS) .......... 160
EVODOS BV (THE NETHERLANDS) ....................... 161
ORIGINIO, INC. (UNITED STATES) .................... 162
PHARMALINK EXTRACTS LTD (NEW ZEALAND) ............................ 163
PHASEX CORPORATION (UNITED STATES) ............. 163
RADIENT INC. (CANADA) ................................. 164
SEPAREX SAS (FRANCE) ........................................ 164
THAI PROCESS, INC. (UNITED STATES) ............... 165
OTHER NATURAL ASTAXANTHIN MANUFACTURERS ................................................................. 165
BLUEOCEAN NUTRACEUTICALS INC. (CANADA) .............................................................. 166
GUANGZHOU IDEA BIOTECH DEVELOPMENT CO LTD (CHINA) .............................................................. 166
IGENE BIOTECHNOLOGY, INC. (UNITED STATES) ...... 167
JX NIPPON OIL & ENERGY CORPORATION (JAPAN) .......... 168
5. KEY BUSINESS TRENDS ........................................ 169
BlueOcean NutraSciences Files New Patent Applications .............................................................. 169
BlueOcean and Neptune in a Licensing Agreement ... 169
Fujifilm Launches New Range of Cosmetics Containing Astaxanthin ........................................... 180
Algae Health Receives €1 Million Biotech Investment ................................................................. 180
Algaeon Obtains Long-Term Loan Facility for Expansion ............................................................ 181
Astaxanthin Water Soluble Emulsion Launched by Algaltechnologies ................................. 181
Fuji Chemical Integrates Astaxanthin Business under “Astareal” .................................................. 181
EID Parry’s Acquisition of Valensa Complete .......... 182
Cyanotech Expands Astaxanthin Production Capacity ................................................................. 182
Astaxanthin Plant closures from Yamaha and Fuji Agitate Industry .................................................. 182
Fuji Expands Astaxanthin Capacity ......................................................... 182
Fuji Relocates Astaxanthin Production Facility ......... 183
Cyanotech’s BioAstin® Natural Astaxanthin Granted GRAS Status ............................................ 183
Naturxan LLC Increases Production Capacity of Aqusta® Naturally Sourced Astaxanthin ................. 183
Nippon Oil Initiates European Production of Paracoccus Astaxanthin for use in Fish Feed .......... 183
Valensa Initiates Out Licensing Patent for Astaxanthin in Eye Health Management ................. 184
Valensa Develops Innovative O2B® Peroxidation Blocker Technology ........................................ 184
Valensa Receives Astaxanthin Production Capacity 184
ADM and Igene Biotechnology Combine Forces for Natural Astaxanthin Supply to Aquaculture Industry 185
6. GLOBAL MARKET OVERVIEW ................................ 186
6.1 Astaxanthin Market Overview by End-use Application ......................................................... 187
6.2 Astaxanthin Market Overview by Raw Material Source ......................................................... 191
6.2.1 Synthetic Astaxanthin ........................................... 191
6.2.1.1 Synthetic Astaxanthin Market Overview by Geographic Region ............................................ 196
6.2.2 Natural Source Astaxanthin ............................................ 200
6.2.2.1 Microalgae (Haematococcus pluvialis) Astaxanthin ................................................................. 200
6.2.2.1.1 Microalgae (Haematococcus pluvialis) Astaxanthin Market Overview by End-use Application 201
6.2.2.1.2 Microalgae (Haematococcus pluvialis) Astaxanthin Market Overview by Geographic Region 205
6.2.2.1.3 Microalgae (Haematococcus pluvialis) Astaxanthin End-use Market Application Overview by Geographic Region ......................................................... 209
6.2.2.1.3.1 Nutraecuticals ................................ 209
6.2.2.1.3.2 Aqua Feed ............................................. 213
6.2.2.1.3.3cosmetics ............................................. 217
6.2.2.1.3.4 Food & Beverages ................................ 221
6.2.2.2 Bacteria (Paracoccus carotinifaciens) Astaxanthin ................................................................. 225
6.2.2.2.1 Bacteria (Paracoccus carotinifaciens) Astaxanthin Market Overview by Geographic Region .......... 226
PART B: REGIONAL MARKET PERSPECTIVE ........ 230
REGIONAL MARKET OVERVIEW ............................. 234
1. NORTH AMERICA ............................................. 234
1.1 Astaxanthin Market Overview by Raw Material Source ......................................................... 235
1.1.1 Synthetic Astaxanthin ........................................... 235
1.1.1.1 Synthetic Astaxanthin Market Overview by Geographic Region ............................................ 240
1.1.2 Natural Source Astaxanthin ............................................ 244
1.1.2.1 Microalgae (Haematococcus pluvialis) Astaxanthin ................................................................. 244
1.1.2.1.1 Microalgae (Haematococcus pluvialis) Astaxanthin Market Overview by End-use Application 245
1.1.2.2 Bacteria (Paracoccus carotinifaciens) Astaxanthin ................................................................. 249
2. EUROPE .......................................................... 250
2.1 Astaxanthin Market Overview by Raw Material Source ........................................ 251
2.1.1 Synthetic Astaxanthin ....................................... 255
2.1.1.1 Synthetic Astaxanthin Market Overview by Geographic Region .................... 256
2.1.2 Natural Source Astaxanthin ............................. 260
2.1.2.1 Microalgae (Haematococcus pluvialis) Astaxanthin ........................................ 260
2.1.2.1.1 Microalgae (Haematococcus pluvialis) Astaxanthin Market Overview by End-use Application .......................................... 261
2.1.2.2 Bacteria (Paracoccus carotinhfaciens) Astaxanthin ........................................ 265
3. JAPAN .............................................................. 266
3.1 Astaxanthin Market Overview by Raw Material Source ........................................ 267
3.1.1 Synthetic Astaxanthin ....................................... 271
3.1.2 Natural Source Astaxanthin ............................. 272
3.1.2.1 Microalgae (Haematococcus pluvialis) Astaxanthin ........................................ 272
3.1.2.1.1 Microalgae (Haematococcus pluvialis) Astaxanthin Market Overview by Geographic Region ........................................ 273
3.1.2.2 Bacteria (Paracoccus carotinhfaciens) Astaxanthin ........................................ 277
4. ASIA-PACIFIC ................................................... 278
4.1 Astaxanthin Market Overview by Raw Material Source ........................................ 279
4.1.1 Synthetic Astaxanthin ....................................... 283
4.1.1.1 Synthetic Astaxanthin Market Overview by Geographic Region .................... 284
4.1.2 Natural Source Astaxanthin ............................. 288
4.1.2.1 Microalgae (Haematococcus pluvialis) Astaxanthin ........................................ 288
4.1.2.1.1 Microalgae (Haematococcus pluvialis) Astaxanthin Market Overview by End-use Application ........................................ 289
5. SOUTH AMERICA.......................... 293
5.1 Astaxanthin Market Overview by Raw Material Source ........................................ 294
5.1.1 Synthetic Astaxanthin ....................................... 298
5.1.1.1 Synthetic Astaxanthin Market Overview by Geographic Region .................... 299
5.1.2 Natural Source Astaxanthin ............................. 303
5.1.2.1 Microalgae (Haematococcus pluvialis) Astaxanthin ........................................ 303
5.1.2.2 Bacteria (Paracoccus carotinhfaciens) Astaxanthin ........................................ 304
6. REST OF WORLD ................................. 305
6.1 Astaxanthin Market Overview by Raw Material Source ........................................ 306
PART C: GUIDE TO THE INDUSTRY ................. 310
PART D: ANNEXURE ........................................... 314
1. RESEARCH METHODOLOGY ......................... 314
2. FEEDBACK ..................................................... 317

LIST OF CHARTS, TABLES & FIGURES

PART A: GLOBAL MARKET PERSPECTIVE ........ 1
Chart 2: 2014 and 2020 Global Astaxanthin Market Trends by Raw Material Source in USD Million .... 4
Chart 3: 2014 and 2020 Global Haematococcus pluvialis Microalgae Astaxanthin Market Trends by End-use Application in Metric Tons ................................ 5
Chart 4: 2014 and 2020 Global Haematococcus pluvialis Microalgae Astaxanthin Market Trends by End-use Application in USD Million .......... 6
Chart 5: Global Astaxanthin Market Overview (2010-2020) by Volume in Metric Tons and Value in USD Million ........................................ 186
Chart 6: Global Astaxanthin Market Overview (2010-2020) by End-use Application - Aqua Feed, Nutraceuticals, Cosmetics and Food & Beverages in Metric Tons ........................................ 187
Chart 7: Glance at 2010, 2015 and 2020 Global Astaxanthin Volume Market Share (%) by End-use Application - Aqua Feed, Nutraceuticals, Cosmetics and Food & Beverages .......... 188
Chart 8: Global Astaxanthin Market Overview (2010-2020) by End-use Application - Aqua Feed, Nutraceuticals, Cosmetics and Food & Beverages in USD Million .............................. 189
Chart 9: Glance at 2010, 2015 and 2020 Global Astaxanthin Value Market Share (%) by End-use Application - Aqua Feed, Nutraceuticals, Cosmetics and Food & Beverages .......... 190
Chart 10: Global Astaxanthin Market Overview (2010-2020) by Raw Material Source - Synthetic, Microalgae and Bacteria in Metric Tons ........ 191
Chart 11: Glance at 2010, 2015 and 2020 Global Astaxanthin Volume Market Share (%) by Raw Material Source - Synthetic, Microalgae and Bacteria .......... 192
Chart 12: Global Astaxanthin Market Overview (2010-2020) by Raw Material Source - Synthetic, Microalgae and Bacteria in USD Million .................. 193
Chart 13: Glance at 2010, 2015 and 2020 Global Astaxanthin Value Market Share (%) by Raw Material Source - Synthetic, Microalgae and Bacteria ........ 194
Chart 14: Global Synthetic Astaxanthin Market Overview (2010-2020) by Volume in Metric Tons and Value in USD Million ........................................ 195
Chart 15: Global Synthetic Astaxanthin Market Overview (2010-2020) by Geographic Region - North America, South America, Europe, Asia-Pacific and Rest of World in Metric Tons ........................................ 196
Chart 16: Glance at 2010, 2015 and 2020 Global Synthetic Astaxanthin Volume Market Share (%) by Geographic Region - North America, South America, Europe, Asia-Pacific and Rest of World ............ 197
Chart 17: Global Synthetic Astaxanthin Market Overview (2010-2020) by Geographic Region - North America, South America, Europe, Asia-Pacific and Rest of World in USD Million .......... 198
Chart 18: Glance at 2010, 2015 and 2020 Global Synthetic Astaxanthin Value Market Share (%) by Geographic Region - North America, South America, Europe, Asia-Pacific and Rest of World ............ 199
Chart 19: Global Microalgae Astaxanthin Market Overview (2010-2020) by Volume in Metric Tons and Value in USD Million ........................................ 200
Chart 20: Global Haematococcus Microalgae Astaxanthin Market Overview (2010-2020) by End-use Application - Nutraceuticals, Aqua Feed, Cosmetics and Food & Beverages in Metric Tons .......... 201
Chart 22: Global Haematococcus Microalgae Astaxanthin Market Overview (2010-2020) by End-use Application - Nutraceuticals, Aqua Feed, Cosmetics and Food & Beverages in USD Million ........ 203
Chart 23: Glance at 2010, 2015 and 2020 Global Haematococcus Microalgae Astaxanthin Value Market Share (%) by End-use Application - Nutraceuticals, Aqua Feed, Cosmetics and Food & Beverages .......... 204
Chart 24: Global Haematococcus pluvialis Microalgae Astaxanthin Market Overview (2010-2020) by Geographic Region - United States, Europe, Japan, Asia-Pacific and Rest of World in Metric Tons .......... 205
Chart 25: Glance at 2010, 2015 and 2020 Global Haematococcus pluvialis Microalgae Astaxanthin Volume Market Share (%) by Geographic Region - United States, Europe, Japan, Asia-Pacific and Rest of World ............ 206
Chart 26: Global Haematococcus pluvialis Microalgae Astaxanthin Market Overview (2010-2020) by Geographic Region - United States, Europe, Japan, Asia-Pacific and Rest of World in USD Million .......... 207
Chart 27: Glance at 2010, 2015 and 2020 Global Haematococcus pluvialis Microalgae Astaxanthin Value Market Share (%) by Geographic Region - United States, Europe, Japan, Asia-Pacific and Rest of World ............ 208
Chart 28: Global Haematococcus pluvialis Microalgae Astaxanthin Market in Nutraceuticals (2010-2020) by Geographic Region - United States, Europe, Japan, Asia-Pacific and Rest of World in Metric Tons ........ 209
Chart 29: Glance at 2010, 2015 and 2020 Global Haematococcus pluvialis Microalgae Astaxanthin Volume Market Share (%) in Nutraceuticals by Geographic Region - United States, Europe, Japan, Asia-Pacific and Rest of World ............ 210
Chart 30: Global Haematococcus pluvialis Microalgae Astaxanthin Market in Nutraceuticals (2010-2020) by Geographic Region - United States, Europe, Japan, Asia-Pacific and Rest of World in USD Million .......... 211
Chart 31: Glance at 2010, 2015 and 2020 Global Haematococcus pluvialis Microalgae Astaxanthin Value Market Share (%) in Nutraceuticals by Geographic Region - United States, Europe, Japan, Asia-Pacific and Rest of World ............ 212
Chart 32: Global Haematococcus pluvialis Microalgae Astaxanthin Market in Aqua Feed (2010-2020) by Geographic Region - United States, Europe, Japan, Asia-Pacific, South America and Rest of World in Metric Tons ........ 213
Chart 33: Glance at 2010, 2015 and 2020 Global Haematococcus pluvialis Microalgae Astaxanthin Volume Market Share (%) in Aqua Feed by Geographic Region - United States, Europe, Japan, Asia-Pacific, South America and Rest of World ............ 214
Chart 34: Global Haematococcus pluvialis Microalgae Astaxanthin Market in Aqua Feed (2010-2020) by Geographic Region - United States, Europe, Japan, Asia-Pacific, South America and Rest of World in USD Million .......... 215
Chart 35: Glance at 2010, 2015 and 2020 Global Haematococcus pluvialis Microalgae Astaxanthin Value Market Share (%) in Aqua Feed by Geographic Region - United States, Europe, Japan, Asia-Pacific, South America and Rest of World

Chart 36: Global Haematococcus pluvialis Microalgae Astaxanthin Market in Cosmetics (2010-2020) by Geographic Region - United States, Europe, Japan and Asia-Pacific in Metric Tons

Chart 37: Glance at 2010, 2015 and 2020 Global Haematococcus pluvialis Microalgae Astaxanthin Value Market Share (%) in Cosmetics by Geographic Region - United States, Europe, Japan and Asia-Pacific

Chart 38: Global Haematococcus pluvialis Microalgae Astaxanthin Market in Cosmetics (2010-2020) by Geographic Region - United States, Europe, Japan and Asia-Pacific in USD Million

Chart 39: Glance at 2010, 2015 and 2020 Global Haematococcus pluvialis Microalgae Astaxanthin Value Market Share (%) in Food & Beverages by Geographic Region - United States, Europe, Japan and Asia-Pacific in Metric Tons

Chart 40: Global Haematococcus pluvialis Microalgae Astaxanthin Market in Food & Beverages (2010-2020) by Geographic Region - United States, Japan, Asia-Pacific and Rest of World in Metric Tons

Chart 41: Glance at 2010, 2015 and 2020 Global Haematococcus pluvialis Microalgae Astaxanthin Value Market Share (%) in Food & Beverages by Geographic Region - United States, Japan, Asia-Pacific and Rest of World

Chart 42: Global Haematococcus pluvialis Microalgae Astaxanthin Market in Food & Beverages (2010-2020) by Geographic Region - United States, Japan, Asia-Pacific and Rest of World in USD Million

Chart 43: Glance at 2010, 2015 and 2020 Global Haematococcus pluvialis Microalgae Astaxanthin Value Market Share (%) in Food & Beverages by Geographic Region - United States, Japan, Asia-Pacific and Rest of World

Chart 44: Global Paracoccus carotinifaciens Bacteria Astaxanthin Market Overview (2010-2020) by Volume in Metric Tons and Value in USD Million

Chart 45: Global Paracoccus carotinifaciens Bacteria Astaxanthin Market Overview (2010-2020) by Geographic Region - Europe, Japan, North America and Chile in Metric Tons

Chart 46: Glance at 2010, 2015 and 2020 Global Paracoccus carotinifaciens Bacteria Astaxanthin Value Market Share (%) by Geographic Region - Europe, Japan, North America and Chile

Chart 47: Global Paracoccus carotinifaciens Bacteria Astaxanthin Market Overview (2010-2020) by Geographic Region - Europe, Japan, North America and Chile in USD Million

Chart 48: Glance at 2010, 2015 and 2020 Global Paracoccus carotinifaciens Bacteria Astaxanthin Value Market Share (%) by Geographic Region - Europe, Japan, North America and Chile

PART B: REGIONAL MARKET PERSPECTIVE

Chart 49: Global Astaxanthin Market Overview (2010-2020) by Geographic Region - North America, Europe, Asia-Pacific, South America and Rest of World in Metric Tons

Chart 50: Glance at 2010, 2015 and 2020 Global Astaxanthin Market Volume Market Share (%) by Geographic Region - North America, Europe, Asia-Pacific, South America and Rest of World

Chart 51: Glance at 2010, 2015 and 2020 Global Astaxanthin Market Overview (2010-2020) by Geographic Region - North America, Europe, Asia-Pacific, South America and Rest of World in USD Million

Chart 52: Glance at 2010, 2015 and 2020 Global Astaxanthin Market Value Market Share (%) by Geographic Region - North America, Europe, Asia-Pacific, South America and Rest of World

REGIONAL MARKET OVERVIEW

NORTH AMERICA

Chart 53: North American Astaxanthin Market Overview (2010-2020) by Volume in Metric Tons and Value in USD Million

Chart 54: North American Astaxanthin Market Overview (2010-2020) by Raw Material Source – Synthetic, Microalgae and Bacteria in Metric Tons


Chart 58: North American Synthetic Astaxanthin Market Overview (2010-2020) by Volume in Metric Tons and Value in USD Million

Chart 59: North American Synthetic Astaxanthin Market Overview (2010-2020) by Country – Canada, United States and Mexico in Metric Tons

Chart 60: Glance at 2010, 2015 and 2020 North American Synthetic Astaxanthin Volume Market Share (%) by Country – Canada, United States and Mexico

Chart 61: North American Synthetic Astaxanthin Market Overview (2010-2020) by Country – Canada, United States and Mexico in USD Million

Chart 62: Glance at 2010, 2015 and 2020 North American Synthetic Astaxanthin Value Market Share (%) by Country – Canada, United States and Mexico

Chart 63: United States Haematococcus pluvialis Microalgae Astaxanthin Market Overview (2010-2020) by Volume in USD Million

Chart 64: United States Haematococcus pluvialis Microalgae Astaxanthin Market Overview (2010-2020) by End-use Application – Nutraceuticals, Aqua Feed, Cosmetics and Food & Beverages in USD Million

Chart 65: Glance at 2010, 2015 and 2020 United States Haematococcus pluvialis Microalgae Astaxanthin Volume Market Share (%) by End-use Application – Nutraceuticals, Aqua Feed, Cosmetics and Food & Beverages

Chart 66: United States Haematococcus pluvialis Microalgae Astaxanthin Market Overview (2010-2020) by End-use Application – Nutraceuticals, Aqua Feed, Cosmetics and Food & Beverages in USD Million

Chart 67: Glance at 2010, 2015 and 2020 United States Haematococcus pluvialis Microalgae Astaxanthin Value Market Share (%) by End-use Application – Nutraceuticals, Aqua Feed, Cosmetics and Food & Beverages

Chart 68: North American Paracoccus carotinifaciens Bacteria Astaxanthin Market Overview (2010-2020) by Volume in Metric Tons and Value in USD Million

Chart 69: European Astaxanthin Market Overview (2010-2020) by Volume in Metric Tons and Value in USD Million

Chart 70: European Astaxanthin Market Overview (2010-2020) by Raw Material Source – Synthetic, Microalgae and Bacteria in Metric Tons

Chart 71: Glance at 2010, 2015 and 2020 European Astaxanthin Volume Market Share (%) by Raw Material Source – Synthetic, Microalgae and Bacteria

Chart 72: European Astaxanthin Market Overview (2010-2020) by Raw Material Source – Synthetic, Microalgae and Bacteria in USD Million

Chart 73: Glance at 2010, 2015 and 2020 European Astaxanthin Value Market Share (%) by Raw Material Source – Synthetic, Microalgae and Bacteria

Chart 74: European Synthetic Astaxanthin Market Overview (2010-2020) by Volume in Metric Tons and Value in USD Million

Chart 75: European Synthetic Astaxanthin Market Overview (2010-2020) by Country – Norway, United Kingdom and Rest of Europe in Metric Tons

Chart 76: Glance at 2010, 2015 and 2020 European Synthetic Astaxanthin Value Market Share (%) by Country – Norway, United Kingdom and Rest of Europe

Chart 77: European Synthetic Astaxanthin Market Overview (2010-2020) by Country – Norway, United Kingdom and Rest of Europe in USD Million

Chart 78: Glance at 2010, 2015 and 2020 European Synthetic Astaxanthin Value Market Share (%) by Country – Norway, United Kingdom and Rest of Europe

Chart 79: European Haematococcus pluvialis Microalgae Astaxanthin Market Overview (2010-2020) by Volume in Metric Tons and Value in USD Million

Chart 80: European Haematococcus pluvialis Microalgae Astaxanthin Market Overview (2010-2020) by End-use Application – Nutraceuticals, Aqua Feed and Cosmetics in Metric Tons

Chart 81: Glance at 2010, 2015 and 2020 European Haematococcus pluvialis Microalgae Astaxanthin Volume Market Share (%) by End-use Application – Nutraceuticals, Aqua Feed and Cosmetics

Chart 82: European Haematococcus pluvialis Microalgae Astaxanthin Market Overview (2010-2020) by End-use Application – Nutraceuticals, Aqua Feed and Cosmetics in USD Million

Chart 83: Glance at 2010, 2015 and 2020 European Haematococcus pluvialis Microalgae Astaxanthin Value Market Share (%) by End-use Application – Nutraceuticals, Aqua Feed and Cosmetics

Chart 84: European Paracoccus carotinifaciens Bacteria Astaxanthin Market Overview (2010-2020) by Volume in Metric Tons and Value in USD Million
JAPAN ........................................................................................................ 266
Chart 85: Japanese Astaxanthin Market Overview (2010-2020) by Volume in Metric Tons and Value in USD Million ................................................................. 266
Chart 86: Japanese Astaxanthin Market Overview (2010-2020) by Raw Material Source – Synthetic, Microalgae and Bacteria in Metric Tons ............. 267
Chart 89: Glance at 2010, 2015 and 2020 Japanese Astaxanthin Value Market Share (%) by Raw Material Source – Synthetic, Microalgae and Bacteria .... 270
Chart 90: Japanese Synthetic Astaxanthin Market Overview (2010-2020) by Volume in Metric Tons and Value in USD Million ....................................... 271
Chart 91: Japanese Haematococcus pluvialis Microalgae Astaxanthin Market Overview (2010-2020) by Volume in Metric Tons and Value in USD Million ............... 272
Chart 92: Japanese Haematococcus pluvialis Microalgae Astaxanthin Market Overview (2010-2020) by End-use Application – Nutraceuticals, Aqua Feed, Cosmetics and Food & Beverages in Metric Tons .................................................. 273
Chart 93: Glance at 2010, 2015 and 2020 Japanese Haematococcus pluvialis Microalgae Astaxanthin Volume Market Share (%) by End-use Application – Nutraceuticals, Aqua Feed, Cosmetics and Food & Beverages .................................................. 274
Chart 94: Japanese Haematococcus pluvialis Microalgae Astaxanthin Market Overview (2010-2020) by End-use Application – End-use Application – Nutraceuticals, Aqua Feed, Cosmetics and Food & Beverages in USD Million ........................................ 275
Chart 95: Glance at 2010, 2015 and 2020 Japanese Haematococcus pluvialis Microalgae Astaxanthin Value Market Share (%) by End-use Application – Nutraceuticals, Aqua Feed, Cosmetics and Food & Beverages .................................................. 276
Chart 96: Japanese Paracoccus carotinifaciens Bacteria Astaxanthin Market Overview (2010-2020) by Volume in Metric Tons and Value in USD Million 277

ASIA-PACIFIC ................................................................................................. 278
Chart 97: Asia-Pacific Astaxanthin Market Overview (2010-2020) by Volume in Metric Tons and Value in USD Million .................................................. 278

TABLES & FIGURES

TABLES
Table 1: Singlet Oxygen Quenching Rate Constants of Different Carotenoids .......... 24
Table 2: Ratios of Isomers Found in Astaxanthin from Various Sources ............ 13
Table 3: Free and Esterified Astaxanthin Ratios in Various Sources .................. 25
Table 4: Major Microorganism Sources of Astaxanthin ..................................... 20
Table 5: Astaxanthin Commercial Sources and their Applications ..................... 28
Table 6: Applications of Haematococcus pluvialis derived Astaxanthin ............. 25
Table 7: Examples of Astaxanthin Products Available on the Market ............... 25
Table 8: Synthetic Astaxanthin Forms ......................................................... 27
Table 9: Haematococcus Pluvialis Algae Astaxanthin Forms .............................. 29
Table 10: Other Natural Astaxanthin Forms .................................................. 30
Table 11: Worldwide H. pluvialis Algae Culture Collection Centers ................. 30
Table 12: Typical Composition of Culture Medium .................. 61
Table 13: Standard BG-11 Medium Specifications ........................................ 78
Table 14: BG-11 Trace Metals Solution ......................................................... 78
Table 15: Composition of Growth Medium for Haematococcus ........................ 89

Charts
Chart 1: Glance at 2010, 2015 and 2020 Asia-Pacific Astaxanthin Market Overview (2010-2020) by Volume in Metric Tons and Value in USD Million .... 280
Chart 10: Glance at 2010, 2015 and 2020 Asia-Pacific Astaxanthin Market Overview (2010-2020) by Volume in Metric Tons and Value in USD Million ....... 281
Chart 11: Glance at 2010, 2015 and 2020 Asia-Pacific Astaxanthin Market Overview (2010-2020) by Volume in Metric Tons and Value in USD Million ....... 282
Chart 12: Glance at 2010, 2015 and 2020 Asia-Pacific Astaxanthin Market Overview (2010-2020) by Volume in Metric Tons and Value in USD Million ....... 283
Chart 13: Asia-Pacific Synthetic Astaxanthin Market Overview (2010-2020) by Country – China, Australia & New Zealand and Rest of Asia-Pacific in Metric Tons 284
Chart 15: Asia-Pacific Synthetic Astaxanthin Market Overview (2010-2020) by Country – China, Australia & New Zealand and Rest of Asia-Pacific in USD Million 286
Chart 16: Glance at 2010, 2015 and 2020 Asia-Pacific Synthetic Astaxanthin Market Volume Market Share (%) by Country – China, Australia & New Zealand and Rest of APAC ......................................................... 287
Chart 17: Asia-Pacific Haematococcus pluvialis Microalgae Astaxanthin Market Overview (2010-2020) by Volume in Metric Tons and Value in USD Million ........... 288
Chart 18: Asia-Pacific Haematococcus pluvialis Microalgae Astaxanthin Market Overview (2010-2020) by End-use Application – Nutraceuticals, Aqua Feed, Cosmetics and Food & Beverages in Metric Tons ................. 289
Chart 19: Glance at 2010, 2015 and 2020 Asia-Pacific Haematococcus pluvialis Microalgae Astaxanthin Volume Market Share (%) by End-use Application – Nutraceuticals, Aqua Feed, Cosmetics and Food & Beverages .................................................. 290

SOUTH AMERICA ...................................................................................... 293
Chart 122: South American Astaxanthin Market Overview (2010-2020) by Volume in Metric Tons and Value in USD Million .......................... 303
Chart 123: Chilean Paracoccus carotinifaciens Bacteria Astaxanthin Market Overview (2010-2020) by Volume in Metric Tons and Value in USD Million .......... 304

REST OF WORLD ....................................................................................... 305
Chart 124: Rest of World Astaxanthin Market Overview (2010-2020) by Volume in Metric Tons and Value in USD Million .......................... 305
Chart 125: Rest of World Astaxanthin Market Overview (2010-2020) by Raw Material Source – Synthetic and Microalgae in Metric Tons ........... 306
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