

Biosurfactants Market by Type (Sophorolipids, Rhamnolipids, Lipopeptides), Application (Detergents, Personal Care, Food Processing, Agriculture Chemicals), and Region (Europe, North America, Asia Pacific, South America) - Global Forecast to 2028

<https://marketpublishers.com/r/BC2F453E583EN.html>

Date: October 2023

Pages: 206

Price: US\$ 4,950.00 (Single User License)

ID: BC2F453E583EN

Abstracts

In terms of value, the biosurfactants market is estimated to grow from USD 1.2 Billion in 2022 to USD 2.3 Billion by 2028, at a CAGR of 11.0%. Detergents and cleaning supplies are among the industries in which biosurfactants are most widely used. By lowering the surface tension of the water and boosting the removal of dirt and stains, they enhance the wetting and cleaning characteristics of these solutions. Cosmetics, skincare, and toiletries all use biosurfactants. In order to improve the emulsification and dispersion of cosmetic components, they function as mild and gentle surfactants.

“Sophorolipids is estimated to be the largest type of the biosurfactants, in terms of value, during the forecast period.”

The demand for sophorolipids has been increasing in recent years, primarily due to growing concerns about the environmental and health impacts of traditional surfactants. Because sophorolipids are biodegradable, they degrade in the environment into harmless components. This eco-friendly trait is in line with the rising demand for green and sustainable products. Sophorolipids are used in a variety of products, such as detergents, cosmetics, personal care items, food, and environmental cleanup. This versatility has contributed to their growing adaptability.

“Personal care is expected to be the fastest-growing application of the biosurfactants market, in terms of value, during the forecast period.”

The need for eco-friendly and sustainable components in cosmetic and personal care products is causing a growth in the usage of biosurfactants in the personal care business. Biosurfactants are valuable and appealing options for formulators because to their many benefits in personal care applications. Biosurfactants are becoming more popular as regulatory bodies promote the use of ecologically friendly components in personal care products.

“North America is projected to be the second- fastest growing region, in terms of value, during the forecast period in the biosurfactants market.”

Regulatory agencies in North America have been supportive of sustainable and green technologies. The demand for biosurfactants in a variety of products, including cleaning supplies, cosmetics, and agricultural products, has been aided by this assistance. Ongoing research efforts in North America have explored the development of new biosurfactant formulations and the optimization of existing ones for specific applications. All these factors to grow the market demand in the region

By Company Type: Tier 1 - 69%, Tier 2 - 23%, and Tier 3 - 8%

By Designation: C-Level - 23%, Director Level - 37%, and Others - 40%

By Region: North America - 32%, Europe - 21%, Asia Pacific - 28%, Middle East & Africa - 12%, South America – 7%

The key players profiled in the report include Evonik Industries AG (Germany), Deugan Biosurfactant Supplier (China), Biotensidon GmbH (Germany), Saraya Co., Ltd (Japan), Allied Carbon Solutions Co., Ltd. (Japan), Daqing VICTEX Industries Co., Ltd., (China), Jeneil Biotech, Inc. (US), BASF SE (US), Holiferm Limited (UK), and Solvay S.A. (Belgium).

Research Coverage

This report segments the market for biosurfactants based on type, application and region and provides estimations of volume (ton) and value (USD thousand) for the overall market size across various regions. A detailed analysis of key industry players has been conducted to provide insights into their business overviews, services, key strategies, associated with the market for biosurfactants.

Reasons to Buy this Report

This research report is focused on various levels of analysis — industry analysis (industry trends), market share analysis of top players, and company profiles, which together provide an overall view on the competitive landscape; emerging and high-growth segments of the biosurfactants market; high-growth regions; and market drivers, restraints, and opportunities.

The report provides insights on the following pointers:

Market Penetration: Comprehensive information on biosurfactants offered by top players in the global market

Analysis of key drives: (Increasing demand for green solutions, regulations on use of synthetic surfactants, personal care manufacturers going green), restraints (Less commercialization due to high production cost, conventional and biobased products gaining popularity, lack of production technology and cost competitiveness of rhamnolipids), opportunities (development of cost effective production technique, rhamnolipids are anti-tumor agents and immunomodulators, rising demand from petroleum industry), and challenges (High raw material cost) influencing the growth of biosurfactants market.

Product Development/Innovation: Detailed insights on upcoming technologies, research & development activities, and new product & service launches in the biosurfactants market

Market Development: Comprehensive information about lucrative emerging markets — the report analyzes the markets for biosurfactants across regions

Market Diversification: Exhaustive information about new products, untapped regions, and recent developments in the global biosurfactants market

Competitive Assessment: In-depth assessment of market shares, strategies, products, and manufacturing capabilities of leading players in the biosurfactants market

Contents

1 INTRODUCTION

1.1 STUDY OBJECTIVES

1.2 MARKET DEFINITION

1.2.1 BIOSURFACTANTS MARKET: INCLUSIONS AND EXCLUSIONS

1.2.2 BIOSURFACTANTS MARKET: DEFINITION AND INCLUSIONS, BY TYPE

1.2.3 BIOSURFACTANTS MARKET: DEFINITION AND INCLUSIONS, BY APPLICATION

1.3 MARKET SCOPE

FIGURE 1 BIOSURFACTANTS: MARKET SEGMENTATION

1.3.1 REGIONS COVERED

1.3.2 YEARS CONSIDERED

1.4 CURRENCY CONSIDERED

1.5 UNITS CONSIDERED

1.6 STAKEHOLDERS

1.7 SUMMARY OF CHANGES

1.7.1 IMPACT OF RECESSION

2 RESEARCH METHODOLOGY

2.1 RESEARCH DATA

FIGURE 2 BIOSURFACTANTS MARKET: RESEARCH DESIGN

2.1.1 SECONDARY DATA

2.1.2 PRIMARY DATA

2.1.2.1 Primary interviews – demand and supply sides

2.1.2.2 Key industry insights

2.1.2.3 Breakdown of primary interviews

2.2 MARKET SIZE ESTIMATION

2.2.1 BOTTOM-UP APPROACH

FIGURE 3 MARKET SIZE ESTIMATION METHODOLOGY APPROACH 1 (SUPPLY SIDE): COLLECTIVE SHARE OF MAJOR PLAYERS

FIGURE 4 MARKET SIZE ESTIMATION METHODOLOGY APPROACH 1 BOTTOM-UP (SUPPLY SIDE): COLLECTIVE REVENUE OF ALL PRODUCTS

FIGURE 5 MARKET SIZE ESTIMATION METHODOLOGY APPROACH 2 BOTTOM-UP (DEMAND SIDE): PRODUCTS SOLD

2.2.2 TOP-DOWN APPROACH

FIGURE 6 MARKET SIZE ESTIMATION METHODOLOGY: APPROACH 3 TOP-DOWN

2.3 DATA TRIANGULATION

FIGURE 7 BIOSURFACTANTS MARKET: DATA TRIANGULATION

2.4 GROWTH FORECAST

2.4.1 SUPPLY SIDE

FIGURE 8 MARKET CAGR PROJECTIONS FROM SUPPLY SIDE

2.4.2 DEMAND SIDE

FIGURE 9 MARKET GROWTH PROJECTIONS FROM DEMAND SIDE: DRIVERS AND OPPORTUNITIES

2.5 IMPACT OF RECESSION

2.6 RESEARCH ASSUMPTIONS

2.7 RESEARCH LIMITATIONS

2.8 RISK ASSESSMENT

TABLE 1 BIOSURFACTANTS MARKET: RISK ASSESSMENT

3 EXECUTIVE SUMMARY

FIGURE 10 SOPHOROLIPIDS SEGMENT TO LEAD BIOSURFACTANTS MARKET BETWEEN 2023 AND 2028

FIGURE 11 DETERGENTS APPLICATION TO LEAD BIOSURFACTANTS MARKET DURING FORECAST PERIOD

FIGURE 12 EUROPE ACCOUNTED FOR LARGEST MARKET SHARE IN 2022

4 PREMIUM INSIGHTS

4.1 ATTRACTIVE OPPORTUNITIES FOR PLAYERS IN BIOSURFACTANTS MARKET

FIGURE 13 GROWING PERSONAL CARE APPLICATION TO DRIVE BIOSURFACTANTS MARKET DURING FORECAST PERIOD

4.2 BIOSURFACTANTS MARKET, BY REGION

FIGURE 14 EUROPE TO BE LARGEST MARKET FOR BIOSURFACTANTS DURING FORECAST PERIOD

4.3 EUROPE: BIOSURFACTANTS MARKET, BY APPLICATION AND COUNTRY, 2022

FIGURE 15 DETERGENTS APPLICATION AND GERMANY ACCOUNTED FOR LARGEST SHARES

4.4 BIOSURFACTANTS MARKET, BY APPLICATION

FIGURE 16 SOPHOROLIPIDS TO BE LARGEST TYPE OF BIOSURFACTANTS DURING FORECAST PERIOD

4.5 BIOSURFACTANTS MARKET, APPLICATION VS. REGION

FIGURE 17 DETERGENTS SEGMENT LED BIOSURFACTANTS MARKET ACROSS

REGIONS IN 2022

4.6 BIOSURFACTANTS MARKET: MAJOR COUNTRIES

FIGURE 18 GERMANY TO REGISTER HIGHEST CAGR BETWEEN 2023 AND 2028

5 MARKET OVERVIEW

5.1 INTRODUCTION

5.2 MARKET DYNAMICS

FIGURE 19 DRIVERS, RESTRAINTS, OPPORTUNITIES, AND CHALLENGES IN BIOSURFACTANTS MARKET

5.2.1 DRIVERS

- 5.2.1.1 Increasing demand for green solutions
- 5.2.1.2 Regulations on use of synthetic surfactants
- 5.2.1.3 Personal care product manufacturers going green

5.2.2 RESTRAINTS

- 5.2.2.1 Less commercialization due to high production cost
- 5.2.2.2 Conventional bio-based products gaining popularity

5.2.3 OPPORTUNITIES

- 5.2.3.1 Development of cost-effective production techniques

TABLE 2 POTENTIAL APPLICATIONS OF BIOSURFACTANTS FOR INDUSTRIAL USES

- 5.2.3.2 Rhamnolipids as antitumor agents and immunomodulators
- 5.2.3.3 Rising demand from petroleum industry

5.2.4 CHALLENGES

- 5.2.4.1 Lack of production technology and cost-competitiveness of rhamnolipids

5.3 PORTER'S FIVE FORCES ANALYSIS

FIGURE 20 BIOSURFACTANTS: PORTER'S FIVE FORCES ANALYSIS

- 5.3.1 THREAT OF SUBSTITUTES
- 5.3.2 BARGAINING POWER OF SUPPLIERS
- 5.3.3 BARGAINING POWER OF BUYERS
- 5.3.4 THREAT OF NEW ENTRANTS
- 5.3.5 INTENSITY OF COMPETITIVE RIVALRY

TABLE 3 BIOSURFACTANTS MARKET: PORTER'S FIVE FORCES ANALYSIS

5.4 MACROECONOMIC INDICATORS

- 5.4.1 GDP TRENDS AND FORECAST FOR MAJOR ECONOMIES

TABLE 4 GDP TRENDS AND FORECAST OF MAJOR ECONOMIES, 2020–2028
(USD BILLION)

6 INDUSTRY TRENDS

6.1 SUPPLY CHAIN ANALYSIS

FIGURE 21 BIOSURFACTANTS: SUPPLY CHAIN

6.1.1 RAW MATERIALS

6.1.2 MANUFACTURERS

6.1.3 DISTRIBUTION NETWORK

6.1.4 END USERS

6.2 KEY STAKEHOLDERS & BUYING CRITERIA

6.2.1 KEY STAKEHOLDERS IN BUYING PROCESS

FIGURE 22 INFLUENCE OF STAKEHOLDERS ON BUYING PROCESS FOR TOP THREE APPLICATIONS

TABLE 5 INFLUENCE OF STAKEHOLDERS ON BUYING PROCESS FOR TOP THREE APPLICATIONS (%)

6.2.2 BUYING CRITERIA

FIGURE 23 KEY BUYING CRITERIA FOR TOP THREE APPLICATIONS

TABLE 6 KEY BUYING CRITERIA FOR TOP THREE APPLICATIONS

6.3 PRICING ANALYSIS

6.3.1 AVERAGE SELLING PRICE TREND OF KEY PLAYERS, BY APPLICATION

FIGURE 24 AVERAGE SELLING PRICE TREND OF KEY PLAYERS FOR TOP THREE APPLICATIONS

TABLE 7 AVERAGE SELLING PRICE TREND OF KEY PLAYERS FOR TOP THREE APPLICATIONS, USD/KG

6.3.2 AVERAGE SELLING PRICE TREND, BY REGION

FIGURE 25 AVERAGE SELLING PRICE TREND OF BIOSURFACTANTS, BY REGION (USD/KG)

TABLE 8 AVERAGE SELLING PRICE TREND OF BIOSURFACTANTS, BY REGION (USD/KG)

6.4 TRENDS/DISRUPTIONS IMPACTING CUSTOMER BUSINESS

6.4.1 REVENUE SHIFTS & REVENUE POCKETS FOR BIOSURFACTANTS MARKET

FIGURE 26 REVENUE SHIFT FOR BIOSURFACTANTS MARKET

6.5 ECOSYSTEM MAPPING

TABLE 9 BIOSURFACTANTS MARKET: ECOSYSTEM

FIGURE 27 BIOSURFACTANTS: ECOSYSTEM

6.6 TECHNOLOGY ANALYSIS

6.6.1 SOLID-STATE FERMENTATION PROCESS

6.6.2 SPECIFIC YIELD ENHANCEMENT BY MEDIA MODULATIONS

6.6.3 BIOSURFACTANT COPRODUCTION FOR PROCESS ECONOMIZATION

6.7 CASE STUDY ANALYSIS

6.7.1 CASE STUDY ON BIOSURFACTANT FLUSHING WITH MULTI-PHASE EXTRACTION

6.8 TRADE DATA STATISTICS

6.8.1 IMPORT SCENARIO OF SURFACTANTS

FIGURE 28 IMPORTS OF SURFACTANTS, BY KEY COUNTRY (2012–2021)

TABLE 10 IMPORTS OF SURFACTANTS, BY REGION, 2012–2021 (USD MILLION)

6.8.2 EXPORT SCENARIO OF SURFACTANTS

FIGURE 29 EXPORTS OF SURFACTANTS, BY KEY COUNTRY (2012–2021)

TABLE 11 EXPORTS OF SURFACTANTS, BY REGION, 2012–2021 (USD MILLION)

6.9 TARIFF AND REGULATORY LANDSCAPE OF BIOSURFACTANTS MARKET

6.9.1 REGULATIONS RELATED TO BIOSURFACTANTS

6.9.2 REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

6.10 KEY CONFERENCES & EVENTS, 2023–2024

TABLE 12 BIOSURFACTANTS MARKET: DETAILED LIST OF CONFERENCES & EVENTS

6.11 PATENT ANALYSIS

6.11.1 APPROACH

6.11.2 DOCUMENT TYPE

FIGURE 30 PATENTS REGISTERED FOR BIOSURFACTANTS, 2012–2022

FIGURE 31 PATENT PUBLICATION TRENDS FOR BIOSURFACTANTS, 2012–2022

6.11.3 LEGAL STATUS OF PATENTS

FIGURE 32 LEGAL STATUS OF PATENTS FILED FOR BIOSURFACTANTS

6.11.4 JURISDICTION ANALYSIS

FIGURE 33 HIGHEST NUMBER OF PATENTS FILED BY COMPANIES IN US

6.11.5 TOP APPLICANTS

FIGURE 34 LOCUS LP CP LLC REGISTERED HIGHEST NUMBER OF PATENTS BETWEEN 2012 AND 2022

TABLE 13 LIST OF PATENTS BY LOCUS LP CO LLC

TABLE 14 TOP TEN PATENT OWNERS (US) DURING LAST TEN YEARS

7 BIOSURFACTANTS MARKET, BY TYPE

7.1 INTRODUCTION

TABLE 15 BIOSURFACTANTS: BREAKDOWN OF TYPES AND MICROORGANISMS

FIGURE 35 RAMNOLIPIDIS TO REGISTER HIGHEST CAGR DURING FORECAST PERIOD

TABLE 16 BIOSURFACTANTS MARKET, BY TYPE, 2017–2021 (USD THOUSAND)

TABLE 17 BIOSURFACTANTS MARKET, BY TYPE, 2022–2028 (USD THOUSAND)

TABLE 18 BIOSURFACTANTS MARKET, BY TYPE, 2017–2021 (TON)

TABLE 19 BIOSURFACTANTS MARKET, BY TYPE, 2022–2028 (TON)

7.2 GLYCOLIPIDS

7.2.1 HIGH BIODEGRADABILITY AND ENVIRONMENTAL COMPATIBILITY TO DRIVE MARKET

7.2.2 SOPHOROLIPIDS

7.2.3 RHAMNOLIPIDS

7.3 LIPOPEPTIDES

7.3.1 ECO-FRIENDLINESS, LESS TOXICITY, BIODEGRADABILITY, AND BIOCOMPATIBILITY CHARACTERISTICS TO DRIVE MARKET

7.3.2 SURFACTINS

7.3.3 LICHENYSINS

8 BIOSURFACTANTS MARKET, BY APPLICATION

8.1 INTRODUCTION

TABLE 20 BIOSURFACTANTS: BREAKDOWN OF APPLICATIONS

FIGURE 36 PERSONAL CARE TO BE FASTEST-GROWING APPLICATION IN BIOSURFACTANTS MARKET DURING FORECAST PERIOD

TABLE 21 BIOSURFACTANTS MARKET, BY APPLICATION, 2017–2021 (USD THOUSAND)

TABLE 22 BIOSURFACTANTS MARKET, BY APPLICATION, 2022–2028 (USD THOUSAND)

TABLE 23 BIOSURFACTANTS MARKET, BY APPLICATION, 2017–2021 (TON)

TABLE 24 BIOSURFACTANTS MARKET, BY APPLICATION, 2022–2028 (TON)

8.2 DETERGENTS

8.2.1 INCREASING USE OF ENVIRONMENTALLY FRIENDLY DETERGENTS IN HOME CARE INDUSTRY TO DRIVE MARKET

TABLE 25 DETERGENTS: BIOSURFACTANTS MARKET, BY REGION, 2017–2021 (USD THOUSAND)

TABLE 26 DETERGENTS: BIOSURFACTANTS MARKET, BY REGION, 2022–2028 (USD THOUSAND)

TABLE 27 DETERGENTS: BIOSURFACTANTS MARKET, BY REGION, 2017–2021 (TON)

TABLE 28 DETERGENTS: BIOSURFACTANTS MARKET, BY REGION, 2022–2028 (TON)

8.3 PERSONAL CARE

8.3.1 CONSUMER AWARENESS REGARDING USE OF ENVIRONMENTALLY FRIENDLY PRODUCTS TO DRIVE MARKET

TABLE 29 PERSONAL CARE: BIOSURFACTANTS MARKET, BY REGION,
2017–2021 (USD THOUSAND)

TABLE 30 PERSONAL CARE: BIOSURFACTANTS MARKET, BY REGION,
2022–2028 (USD THOUSAND)

TABLE 31 PERSONAL CARE: BIOSURFACTANTS MARKET, BY REGION,
2017–2021 (TON)

TABLE 32 PERSONAL CARE: BIOSURFACTANTS MARKET, BY REGION,
2022–2028 (TON)

8.4 FOOD PROCESSING

8.4.1 INCREASING USE OF BIOSURFACTANTS IN FOOD INDUSTRY TO DRIVE
MARKET

TABLE 33 FOOD PROCESSING: BIOSURFACTANTS MARKET, BY REGION,
2017–2021 (USD THOUSAND)

TABLE 34 FOOD PROCESSING: BIOSURFACTANTS MARKET, BY REGION,
2022–2028 (USD THOUSAND)

TABLE 35 FOOD PROCESSING: BIOSURFACTANTS MARKET, BY REGION,
2017–2021 (TON)

TABLE 36 FOOD PROCESSING: BIOSURFACTANTS MARKET, BY REGION,
2022–2028 (TON)

8.5 AGRICULTURAL CHEMICALS

8.5.1 DEMAND FOR CROP PROTECTION AND IMPROVED SHELF LIFE TO DRIVE
MARKET

TABLE 37 AGRICULTURAL CHEMICALS: BIOSURFACTANTS MARKET, BY
REGION, 2017–2021 (USD THOUSAND)

TABLE 38 AGRICULTURAL CHEMICALS: BIOSURFACTANTS MARKET, BY
REGION, 2022–2028 (USD THOUSAND)

TABLE 39 AGRICULTURAL CHEMICALS: BIOSURFACTANTS MARKET, BY
REGION, 2017–2021 (TON)

TABLE 40 AGRICULTURAL CHEMICALS: BIOSURFACTANTS MARKET, BY
REGION, 2022–2028 (TON)

8.6 OTHER APPLICATIONS

TABLE 41 OTHER APPLICATIONS: BIOSURFACTANTS MARKET, BY REGION,
2017–2021 (USD THOUSAND)

TABLE 42 OTHER APPLICATIONS: BIOSURFACTANTS MARKET, BY REGION,
2022–2028 (USD THOUSAND)

TABLE 43 OTHER APPLICATIONS: BIOSURFACTANTS MARKET, BY REGION,
2017–2021 (TON)

TABLE 44 OTHER APPLICATIONS: BIOSURFACTANTS MARKET, BY REGION,
2022–2028 (TON)

9 BIOSURFACTANTS MARKET, BY REGION

9.1 INTRODUCTION

FIGURE 37 EUROPE TO BE FASTEST-GROWING BIOSURFACTANTS MARKET BETWEEN 2023 AND 2028

TABLE 45 BIOSURFACTANTS MARKET, BY REGION, 2017–2021 (USD THOUSAND)

TABLE 46 BIOSURFACTANTS MARKET, BY REGION, 2022–2028 (USD THOUSAND)

TABLE 47 BIOSURFACTANTS MARKET, BY REGION, 2017–2021 (TON)

TABLE 48 BIOSURFACTANTS MARKET, BY REGION, 2022–2028 (TON)

9.2 EUROPE

FIGURE 38 EUROPE: BIOSURFACTANTS MARKET SNAPSHOT

9.2.1 RECESSION IMPACT

9.2.2 EUROPE: BIOSURFACTANTS MARKET, BY APPLICATION

TABLE 49 EUROPE: BIOSURFACTANTS MARKET, BY APPLICATION, 2017–2021 (USD THOUSAND)

TABLE 50 EUROPE: BIOSURFACTANTS MARKET, BY APPLICATION, 2022–2028 (USD THOUSAND)

TABLE 51 EUROPE: BIOSURFACTANTS MARKET, BY APPLICATION, 2017–2021 (TON)

TABLE 52 EUROPE: BIOSURFACTANTS MARKET, BY APPLICATION, 2022–2028 (TON)

9.2.3 EUROPE: BIOSURFACTANTS MARKET, BY COUNTRY

TABLE 53 EUROPE: BIOSURFACTANTS MARKET, BY COUNTRY, 2017–2021 (USD THOUSAND)

TABLE 54 EUROPE: BIOSURFACTANTS MARKET, BY COUNTRY, 2022–2028 (USD THOUSAND)

TABLE 55 EUROPE: BIOSURFACTANTS MARKET, BY COUNTRY, 2017–2021 (TON)

TABLE 56 EUROPE: BIOSURFACTANTS MARKET, BY COUNTRY, 2022–2028 (TON)

9.2.3.1 Germany

9.2.3.1.1 Investments from major biosurfactant manufacturing companies

TABLE 57 GERMANY: BIOSURFACTANTS MARKET, BY APPLICATION, 2017–2021 (USD THOUSAND)

TABLE 58 GERMANY: BIOSURFACTANTS MARKET, BY APPLICATION, 2022–2028 (USD THOUSAND)

TABLE 59 GERMANY: BIOSURFACTANTS MARKET, BY APPLICATION, 2017–2021 (TON)

TABLE 60 GERMANY: BIOSURFACTANTS MARKET, BY APPLICATION, 2022–2028 (TON)

9.2.3.2 UK

9.2.3.2.1 Strong industrial base and easy availability of raw materials

TABLE 61 UK: BIOSURFACTANTS MARKET, BY APPLICATION, 2017–2021 (USD THOUSAND)

TABLE 62 UK: BIOSURFACTANTS MARKET, BY APPLICATION, 2022–2028 (USD THOUSAND)

TABLE 63 UK: BIOSURFACTANTS MARKET, BY APPLICATION, 2017–2021 (TON)

TABLE 64 UK: BIOSURFACTANTS MARKET, BY APPLICATION, 2022–2028 (TON)

9.2.3.3 France

9.2.3.3.1 Economic stability, progressive industrial hubs, and high labor productivity

TABLE 65 FRANCE: BIOSURFACTANTS MARKET, BY APPLICATION, 2017–2021 (USD THOUSAND)

TABLE 66 FRANCE: BIOSURFACTANTS MARKET, BY APPLICATION, 2022–2028 (USD THOUSAND)

TABLE 67 FRANCE: BIOSURFACTANTS MARKET, BY APPLICATION, 2017–2021 (TON)

TABLE 68 FRANCE: BIOSURFACTANTS MARKET, BY APPLICATION, 2022–2028 (TON)

9.3 ASIA PACIFIC

FIGURE 39 ASIA PACIFIC: BIOSURFACTANTS MARKET SNAPSHOT

9.3.1 RECESSION IMPACT

9.3.2 ASIA PACIFIC: BIOSURFACTANTS MARKET, BY APPLICATION

TABLE 69 ASIA PACIFIC: BIOSURFACTANTS MARKET, BY APPLICATION, 2017–2021 (USD THOUSAND)

TABLE 70 ASIA PACIFIC: BIOSURFACTANTS MARKET, BY APPLICATION, 2022–2028 (USD THOUSAND)

TABLE 71 ASIA PACIFIC: BIOSURFACTANTS MARKET, BY APPLICATION, 2017–2021 (TON)

TABLE 72 ASIA PACIFIC: BIOSURFACTANTS MARKET, BY APPLICATION, 2022–2028 (TON)

9.3.3 ASIA PACIFIC: BIOSURFACTANTS MARKET, BY COUNTRY

TABLE 73 ASIA PACIFIC: BIOSURFACTANTS MARKET, BY COUNTRY, 2017–2021 (USD THOUSAND)

TABLE 74 ASIA PACIFIC: BIOSURFACTANTS MARKET, BY COUNTRY, 2022–2028 (USD THOUSAND)

TABLE 75 ASIA PACIFIC: BIOSURFACTANTS MARKET, BY COUNTRY, 2017–2021 (TON)

TABLE 76 ASIA PACIFIC: BIOSURFACTANTS MARKET, BY COUNTRY, 2022–2028 (TON)

9.3.3.1 Japan

9.3.3.1.1 Versatile, low-cost, and high-performance biosurfactant products

TABLE 77 JAPAN: BIOSURFACTANTS MARKET, BY APPLICATION, 2017–2021
(USD THOUSAND)

TABLE 78 JAPAN: BIOSURFACTANTS MARKET, BY APPLICATION, 2022–2028
(USD THOUSAND)

TABLE 79 JAPAN: BIOSURFACTANTS MARKET, BY APPLICATION, 2017–2021
(TON)

TABLE 80 JAPAN: BIOSURFACTANTS MARKET, BY APPLICATION, 2022–2028
(TON)

9.3.3.2 China

9.3.3.2.1 Changing consumer demand and consecutive increase in industrial output

TABLE 81 CHINA: BIOSURFACTANTS MARKET, BY APPLICATION, 2017–2021
(USD THOUSAND)

TABLE 82 CHINA: BIOSURFACTANTS MARKET, BY APPLICATION, 2022–2028
(USD THOUSAND)

TABLE 83 CHINA: BIOSURFACTANTS MARKET, BY APPLICATION, 2017–2021
(TON)

TABLE 84 CHINA: BIOSURFACTANTS MARKET, BY APPLICATION, 2022–2028
(TON)

9.3.3.3 South Korea

9.3.3.3.1 Presence of technologically advanced manufacturers

TABLE 85 SOUTH KOREA: BIOSURFACTANTS MARKET, BY APPLICATION,
2017–2021 (USD THOUSAND)

TABLE 86 SOUTH KOREA: BIOSURFACTANTS MARKET, BY APPLICATION,
2022–2028 (USD THOUSAND)

TABLE 87 SOUTH KOREA: BIOSURFACTANTS MARKET, BY APPLICATION,
2017–2021 (TON)

TABLE 88 SOUTH KOREA: BIOSURFACTANTS MARKET, BY APPLICATION,
2022–2028 (TON)

9.4 NORTH AMERICA

FIGURE 40 NORTH AMERICA: BIOSURFACTANTS MARKET SNAPSHOT

9.4.1 RECESSION IMPACT

9.4.2 NORTH AMERICA: BIOSURFACTANTS MARKET, BY APPLICATION

TABLE 89 NORTH AMERICA: BIOSURFACTANTS MARKET, BY APPLICATION,
2017–2021 (USD THOUSAND)

TABLE 90 NORTH AMERICA: BIOSURFACTANTS MARKET, BY APPLICATION,
2022–2028 (USD THOUSAND)

TABLE 91 NORTH AMERICA: BIOSURFACTANTS MARKET, BY APPLICATION,

2017–2021 (TON)

TABLE 92 NORTH AMERICA: BIOSURFACTANTS MARKET, BY APPLICATION,
2022–2028 (TON)

9.4.3 NORTH AMERICA: BIOSURFACTANTS MARKET, BY COUNTRY

TABLE 93 NORTH AMERICA: BIOSURFACTANTS MARKET, BY COUNTRY,
2017–2021 (USD THOUSAND)

TABLE 94 NORTH AMERICA: BIOSURFACTANTS MARKET, BY COUNTRY,
2022–2028 (USD THOUSAND)

TABLE 95 NORTH AMERICA: BIOSURFACTANTS MARKET, BY COUNTRY,
2017–2021 (TON)

TABLE 96 NORTH AMERICA: BIOSURFACTANTS MARKET, BY COUNTRY,
2022–2028 (TON)

9.4.3.1 US

9.4.3.1.1 Shift in focus toward use of sustainable plastics across industries

TABLE 97 US: BIOSURFACTANTS MARKET, BY APPLICATION, 2017–2021 (USD
THOUSAND)

TABLE 98 US: BIOSURFACTANTS MARKET, BY APPLICATION, 2022–2028 (USD
THOUSAND)

TABLE 99 US: BIOSURFACTANTS MARKET, BY APPLICATION, 2017–2021 (TON)

TABLE 100 US: BIOSURFACTANTS MARKET, BY APPLICATION, 2022–2028 (TON)

9.5 SOUTH AMERICA

9.5.1 RECESSION IMPACT

9.5.2 SOUTH AMERICA: BIOSURFACTANTS MARKET, BY APPLICATION

TABLE 101 SOUTH AMERICA: BIOSURFACTANTS MARKET, BY APPLICATION,
2017–2021 (USD THOUSAND)

TABLE 102 SOUTH AMERICA: BIOSURFACTANTS MARKET, BY APPLICATION,
2022–2028 (USD THOUSAND)

TABLE 103 SOUTH AMERICA: BIOSURFACTANTS MARKET, BY APPLICATION,
2017–2021 (TON)

TABLE 104 SOUTH AMERICA: BIOSURFACTANTS MARKET, BY APPLICATION,
2022–2028 (TON)

9.5.3 SOUTH AMERICA: BIOSURFACTANTS MARKET, BY COUNTRY

TABLE 105 SOUTH AMERICA: BIOSURFACTANTS MARKET, BY COUNTRY,
2017–2021 (USD THOUSAND)

TABLE 106 SOUTH AMERICA: BIOSURFACTANTS MARKET, BY COUNTRY,
2022–2028 (USD THOUSAND)

TABLE 107 SOUTH AMERICA: BIOSURFACTANTS MARKET, BY COUNTRY,
2017–2021 (TON)

TABLE 108 SOUTH AMERICA: BIOSURFACTANTS MARKET, BY COUNTRY,

2022–2028 (TON)

9.5.3.1 Brazil

9.5.3.1.1 Rising exploration activities and discovery of new oilfields

TABLE 109 BRAZIL: BIOSURFACTANTS MARKET, BY APPLICATION, 2017–2021
(USD THOUSAND)

TABLE 110 BRAZIL: BIOSURFACTANTS MARKET, BY APPLICATION, 2022–2028
(USD THOUSAND)

TABLE 111 BRAZIL: BIOSURFACTANTS MARKET, BY APPLICATION, 2017–2021
(TON)

TABLE 112 BRAZIL: BIOSURFACTANTS MARKET, BY APPLICATION, 2022–2028
(TON)

9.6 MIDDLE EAST & AFRICA

9.6.1 RECESSION IMPACT

9.6.2 MIDDLE EAST & AFRICA: BIOSURFACTANTS MARKET, BY APPLICATION

TABLE 113 MIDDLE EAST & AFRICA: BIOSURFACTANTS MARKET, BY
APPLICATION, 2017–2021 (USD THOUSAND)

TABLE 114 MIDDLE EAST & AFRICA: BIOSURFACTANTS MARKET, BY
APPLICATION, 2022–2028 (USD THOUSAND)

TABLE 115 MIDDLE EAST & AFRICA: BIOSURFACTANTS MARKET, BY
APPLICATION, 2017–2021 (TON)

TABLE 116 MIDDLE EAST & AFRICA BIOSURFACTANTS MARKET, BY
APPLICATION, 2022–2028 (TON)

10 COMPETITIVE LANDSCAPE

10.1 INTRODUCTION

10.2 STRATEGIES ADOPTED BY KEY PLAYERS

10.3 RANKING OF KEY MARKET PLAYERS, 2022

FIGURE 41 RANKING OF TOP FIVE PLAYERS IN BIOSURFACTANTS MARKET,
2022

10.4 MARKET SHARE ANALYSIS

TABLE 117 BIOSURFACTANTS MARKET: DEGREE OF COMPETITION

FIGURE 42 EVONIK INDUSTRIES AG LED BIOSURFACTANTS MARKET IN 2022

10.5 REVENUE ANALYSIS OF TOP FIVE PLAYERS

FIGURE 43 REVENUE ANALYSIS FOR KEY COMPANIES, 2018–2022

10.6 COMPANY EVALUATION MATRIX

10.6.1 STARS

10.6.2 EMERGING LEADERS

10.6.3 PERVASIVE PLAYERS

10.6.4 PARTICIPANTS

FIGURE 44 COMPANY EVALUATION MATRIX FOR BIOSURFACTANTS MARKET

10.6.5 COMPANY FOOTPRINT ANALYSIS

FIGURE 45 BIOSURFACTANTS MARKET: OVERALL COMPANY FOOTPRINT

TABLE 118 BIOSURFACTANTS MARKET: TYPE FOOTPRINT

TABLE 119 BIOSURFACTANTS MARKET: APPLICATION FOOTPRINT

TABLE 120 BIOSURFACTANTS MARKET: REGION FOOTPRINT

10.7 START-UP/SME EVALUATION MATRIX

10.7.1 PROGRESSIVE COMPANIES

10.7.2 RESPONSIVE COMPANIES

10.7.3 DYNAMIC COMPANIES

10.7.4 STARTING BLOCKS

FIGURE 46 START-UP/SME EVALUATION MATRIX FOR BIOSURFACTANTS MARKET

10.7.5 COMPETITIVE BENCHMARKING

TABLE 121 BIOSURFACTANTS MARKET: DETAILED LIST OF KEY START-UPS/SMES

TABLE 122 BIOSURFACTANTS MARKET: COMPETITIVE BENCHMARKING OF KEY START-UPS/SMES

10.8 COMPETITIVE SITUATIONS AND TRENDS

10.8.1 PRODUCT LAUNCHES

TABLE 123 BIOSURFACTANTS MARKET: PRODUCT LAUNCHES (2019–2023)

10.8.2 DEALS

TABLE 124 BIOSURFACTANTS MARKET: DEALS (2019–2023)

10.8.3 OTHER DEVELOPMENTS

TABLE 125 BIOSURFACTANTS MARKET: EXPANSIONS, INVESTMENTS, AND INNOVATIONS (2019– 2023)

11 COMPANY PROFILES

11.1 KEY PLAYERS

(Business Overview, Products/Solutions/Services Offered, Recent Developments, MnM view (Key strengths/Right to win, Strategic choices made, Weakness/competitive threats)*

11.1.1 EVONIK INDUSTRIES AG

TABLE 126 EVONIK INDUSTRIES AG: COMPANY OVERVIEW

FIGURE 47 EVONIK INDUSTRIES AG: COMPANY SNAPSHOT

TABLE 127 EVONIK INDUSTRIES AG: PRODUCT LAUNCHES

TABLE 128 EVONIK INDUSTRIES AG: DEALS

TABLE 129 EVONIK INDUSTRIES AG: OTHER DEVELOPMENTS

11.1.2 DEGUAN BIOSURFACTANT SUPPLIER

TABLE 130 DEGUAN BIOSURFACTANT SUPPLIER: COMPANY OVERVIEW

11.1.3 BIOTENSIDON GMBH

TABLE 131 BIOTENSIDON GMBH: COMPANY OVERVIEW

11.1.4 SARAYA CO., LTD.

TABLE 132 SARAYA CO., LTD.: COMPANY OVERVIEW

11.1.5 ALLIED CARBON SOLUTIONS CO., LTD.

TABLE 133 ALLIED CARBON SOLUTIONS CO., LTD.: COMPANY OVERVIEW

TABLE 134 ALLIED CARBON SOLUTIONS CO., LTD.: DEALS

11.1.6 JENEIL BIOTECH, INC.

TABLE 135 JENEIL BIOTECH, INC.: COMPANY OVERVIEW

11.1.7 BASF SE

TABLE 136 BASF SE: COMPANY OVERVIEW

FIGURE 48 BASF SE: COMPANY SNAPSHOT

TABLE 137 BASF SE: NEW PRODUCT LAUNCHES

TABLE 138 BASF SE: DEALS

11.1.8 HOLIFERM LIMITED

TABLE 139 HOLIFERM LIMITED: COMPANY OVERVIEW

TABLE 140 HOLIFERM LIMITED: DEALS

TABLE 141 HOLIFERM LIMITED: OTHER DEVELOPMENTS

11.1.9 STEPAN COMPANY

TABLE 142 STEPAN COMPANY: COMPANY OVERVIEW

FIGURE 49 STEPAN COMPANY: COMPANY SNAPSHOT

TABLE 143 STEPAN COMPANY: DEALS

11.1.10 KANEKA CORPORATION

TABLE 144 KANEKA CORPORATION: COMPANY OVERVIEW

FIGURE 50 KANEKA CORPORATION: COMPANY SNAPSHOT

11.1.11 RHAMNOLIPID INC.

TABLE 145 RHAMNOLIPID INC.: COMPANY OVERVIEW

11.1.12 AGAE TECHNOLOGIES, LLC

TABLE 146 AGAE TECHNOLOGIES, LLC: COMPANY OVERVIEW

11.1.13 GLYCOSURF, LLC

TABLE 147 GLYCOSURF, LLC: COMPANY OVERVIEW

TABLE 148 GLYCOSURF, LLC: DEALS

11.1.14 LOCUS FERMENTATION SOLUTIONS

TABLE 149 LOCUS FERMENTATION SOLUTIONS: COMPANY OVERVIEW

TABLE 150 LOCUS FERMENTATION SOLUTIONS: PRODUCT LAUNCHES

TABLE 151 LOCUS FERMENTATION SOLUTIONS: DEALS

TABLE 152 LOCUS FERMENTATION SOLUTIONS: OTHER DEVELOPMENTS**11.1.15 GIVAUDAN SA****TABLE 153 GIVAUDAN SA: COMPANY OVERVIEW****FIGURE 51 GIVAUDAN SA: COMPANY SNAPSHOT****11.1.16 SOLVAY S.A.****TABLE 154 SOLVAY S.A.: COMPANY OVERVIEW****FIGURE 52 SOLVAY S.A.: COMPANY SNAPSHOT****TABLE 155 SOLVAY S.A.: PRODUCT LAUNCHES****11.1.17 WHEATOLEO****TABLE 156 WHEATOLEO: COMPANY OVERVIEW****11.1.18 DAQING VICTEX CHEMICAL INDUSTRIES CO., LTD.****TABLE 157 DAQING VICTEX CHEMICAL INDUSTRIES CO., LTD.: COMPANY OVERVIEW****11.2 OTHER PLAYERS****11.2.1 TENSIOGREEN TECHNOLOGY CORP.****TABLE 158 TENSIOGREEN TECHNOLOGY CORP.: COMPANY OVERVIEW****11.2.2 HUB.TECH. S.A.****TABLE 159 HUB.TECH. S.A.: COMPANY OVERVIEW****11.2.3 KEMIN INDUSTRIES, INC.****TABLE 160 KEMIN INDUSTRIES, INC.: COMPANY OVERVIEW****11.2.4 DISPERSA INC.****TABLE 161 DISPERSA INC.: COMPANY OVERVIEW****11.2.5 VETLINE****TABLE 162 VETLINE: COMPANY OVERVIEW****11.2.6 FRAUNHOFER IGB****TABLE 163 FRAUNHOFER IGB: COMPANY OVERVIEW****11.2.7 ZFA TECHNOLOGIES INC.****TABLE 164 ZFA TECHNOLOGIES INC.: COMPANY OVERVIEW****11.2.8 BIOFUTURE LIMITED****TABLE 165 BIOFUTURE LIMITED: COMPANY OVERVIEW****11.2.9 TOYOBO CO., LTD.****TABLE 166 TOYOBO CO., LTD.: COMPANY OVERVIEW****11.2.10 KANEBO COSMETICS INC.****TABLE 167 KANEBO COSMETICS INC.: COMPANY OVERVIEW****11.2.11 MG INTOBIO CO., LTD.****TABLE 168 MG INTOBIO CO., LTD.: COMPANY OVERVIEW****11.2.12 SYNTHEZYME LLC****TABLE 169 SYNTHEZYME LLC: COMPANY OVERVIEW****11.2.13 SASOL LTD.**

TABLE 170 SASOL LTD.: COMPANY OVERVIEW**11.2.14 TEEGENE BIOTECH LTD.****TABLE 171 TEEGENE BIOTECH LTD.: COMPANY OVERVIEW**

Details on Business Overview, Products/Solutions/Services Offered, Recent Developments, MnM view (Key strengths/Right to win, Strategic choices made, Weakness/competitive threats) might not be captured in case of unlisted companies.

12 ADJACENT & RELATED MARKETS**12.1 INTRODUCTION****12.2 LIMITATIONS****12.3 SURFACTANTS MARKET****12.3.1 MARKET DEFINITION****12.3.2 MARKET OVERVIEW****12.4 SURFACTANTS MARKET, BY REGION****TABLE 172 SURFACTANTS MARKET, BY REGION, 2018–2021 (USD MILLION)****TABLE 173 SURFACTANTS MARKET, BY REGION, 2022–2028 (USD MILLION)****TABLE 174 SURFACTANTS MARKET, BY REGION, 2018–2021 (KILOTON)****TABLE 175 SURFACTANTS MARKET, BY REGION, 2022–2028 (KILOTON)****12.4.1 ASIA PACIFIC****TABLE 176 ASIA PACIFIC: SURFACTANTS MARKET, BY COUNTRY, 2018–2021 (USD MILLION)****TABLE 177 ASIA PACIFIC: SURFACTANTS MARKET, BY COUNTRY, 2022–2028 (USD MILLION)****TABLE 178 ASIA PACIFIC: SURFACTANTS MARKET, BY COUNTRY, 2018–2021 (KILOTON)****TABLE 179 ASIA PACIFIC: SURFACTANTS MARKET, BY COUNTRY, 2022–2028 (KILOTON)****12.4.2 EUROPE****TABLE 180 EUROPE: SURFACTANTS MARKET, BY COUNTRY, 2018–2021 (USD MILLION)****TABLE 181 EUROPE: SURFACTANTS MARKET, BY COUNTRY, 2022–2028 (USD MILLION)****TABLE 182 EUROPE: SURFACTANTS MARKET, BY COUNTRY, 2018–2021 (KILOTON)****TABLE 183 EUROPE: SURFACTANTS MARKET, BY COUNTRY, 2022–2028 (KILOTON)****12.4.3 NORTH AMERICA****TABLE 184 NORTH AMERICA: SURFACTANTS MARKET, BY COUNTRY, 2018–2021**

(USD MILLION)

TABLE 185 NORTH AMERICA: SURFACTANTS MARKET, BY COUNTRY, 2022–2028

(USD MILLION)

TABLE 186 NORTH AMERICA: SURFACTANTS MARKET, BY COUNTRY, 2018–2021

(KILOTON)

TABLE 187 NORTH AMERICA: SURFACTANTS MARKET, BY COUNTRY, 2022–2028

(KILOTON)

12.4.4 MIDDLE EAST & AFRICA

TABLE 188 MIDDLE EAST & AFRICA: SURFACTANTS MARKET, BY COUNTRY,
2018–2021 (USD MILLION)

TABLE 189 MIDDLE EAST & AFRICA: SURFACTANTS MARKET, BY COUNTRY,
2022–2028 (USD MILLION)

TABLE 190 MIDDLE EAST & AFRICA: SURFACTANTS MARKET, BY COUNTRY,
2018–2021 (KILOTON)

TABLE 191 MIDDLE EAST & AFRICA: SURFACTANTS MARKET, BY COUNTRY,
2022–2028 (KILOTON)

12.4.5 SOUTH AMERICA

TABLE 192 SOUTH AMERICA: SURFACTANTS MARKET, BY COUNTRY, 2018–2021
(USD MILLION)

TABLE 193 SOUTH AMERICA: SURFACTANTS MARKET, BY COUNTRY, 2022–2028
(USD MILLION)

TABLE 194 SOUTH AMERICA: SURFACTANTS MARKET, BY COUNTRY, 2018–2021
(KILOTON)

TABLE 195 SOUTH AMERICA: SURFACTANTS MARKET, BY COUNTRY, 2022–2028
(KILOTON)

13 APPENDIX

13.1 DISCUSSION GUIDE

13.2 KNOWLEDGESTORE: MARKETSANDMARKETS' SUBSCRIPTION PORTAL

13.3 CUSTOMIZATION OPTIONS

13.4 RELATED REPORTS

13.5 AUTHOR DETAILS

I would like to order

Product name: Biosurfactants Market by Type (Sophorolipids, Rhamnolipids, Lipopeptides), Application (Detergents, Personal Care, Food Processing, Agriculture Chemicals), and Region (Europe, North America, Asia Pacific, South America) - Global Forecast to 2028

Product link: <https://marketpublishers.com/r/BC2F453E583EN.html>

Price: US\$ 4,950.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/BC2F453E583EN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:
Last name:
Email:
Company:
Address:
City:
Zip code:
Country:
Tel:
Fax:
Your message:

****All fields are required**

Customer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below

and fax the completed form to +44 20 7900 3970