

Metal Biocides Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Type (Zinc, Silver, Copper & Alloys, Others), By End User (Medical, Textile, Wood Preservation, Paints & Coatings, Food & Beverages, Pesticides, Others), By Region and Competition, 2020-2030

<https://marketpublishers.com/r/M3495C98D298EN.html>

Date: May 2025

Pages: 185

Price: US\$ 4,500.00 (Single User License)

ID: M3495C98D298EN

Abstracts

Market Overview

The Global Metal Biocides Market was valued at USD 3.98 Billion in 2024 and is projected to reach USD 5.29 Billion by 2030, growing at a CAGR of 4.93% during the forecast period. Metal biocides are specialized agents used to eliminate or inhibit harmful microorganisms such as bacteria, fungi, and algae. These biocides incorporate metals like copper, magnesium, silver, and zinc to serve roles in antimicrobial protection, disinfection, preservation, and pest control across a wide array of industries including water treatment, medical, paints & coatings, and textiles. The rising infrastructure development in countries like the U.S., China, and India is driving the construction sector, leading to increased demand for metal biocides used in protecting building surfaces from microbial damage. Additionally, trends in global crude steel production reflect shifting regional demand patterns, which influence the usage of metal biocides for corrosion prevention. While declines were observed in North America and Europe, increased steel output in regions such as Africa signals growing industrial activity and a potential rise in the demand for metal biocides in these markets.

Key Market Drivers

Growing Demand of Metal Biocides in Medical Industry

The medical industry is increasingly utilizing metal biocides due to their effectiveness in preventing microbial contamination and supporting hygienic environments. The heightened emphasis on infection control, especially in hospitals and clinics, has amplified the use of these biocides in medical device manufacturing and surface treatments. Their ability to reduce bacterial transmission in critical healthcare settings makes them a preferred component in sterilization and protective applications. As healthcare infrastructure expands and the demand for safe medical tools rises, metal biocides are expected to play a larger role in infection prevention. This growing medical reliance is not only propelling market demand but also driving innovation toward the development of advanced, more efficient formulations tailored for clinical use.

Key Market Challenges

Volatility in Product Development Cost

The cost of developing metal biocides is subject to considerable volatility, primarily due to fluctuating raw material prices and regulatory burdens. The metals used—such as silver, copper, and zinc—are tied to global commodity markets, making their prices susceptible to shifts influenced by geopolitical issues, supply constraints, and economic changes. Moreover, stringent regulatory compliance across different regions adds complexity, with manufacturers needing to meet evolving safety, environmental, and labeling standards. Compliance efforts often involve high testing and certification costs. Additionally, R&D expenditures can be unpredictable, as companies invest in creating novel biocide solutions to meet safety and efficacy requirements. These combined factors create a challenging cost environment for producers, particularly when trying to maintain price competitiveness while ensuring regulatory and performance standards.

Key Market Trends

Growing Concerns About Microbial Contamination

Microbial contamination remains a significant concern in industries such as healthcare, food, pharmaceuticals, and coatings, leading to increased reliance on biocidal solutions. In the paints and coatings sector, microbial contamination affects product performance and shelf life by causing spoilage, discoloration, and foul odors. Metal biocides, particularly those based on silver and copper, have proven effective in

combating microbial growth, thereby improving product durability and hygiene. As demand rises for high-performance materials that resist microbial degradation, metal biocides are being adopted more widely across various applications. This trend is driving R&D efforts toward the development of next-generation biocidal products with stronger antimicrobial properties and better safety profiles, reinforcing their role in quality preservation and environmental health.

Key Market Players

BASF SE

Clariant AG

Dow Inc.

Milliken Chemical Company

Lonza Group AG

Troy Corporation

SteriTouch Ltd

Noble Biomaterials Inc.

Renaissance Chemicals Ltd

LANXESS AG

Report Scope

In this report, the Global Metal Biocides Market has been segmented into the following categories, in addition to the industry trends which have also been detailed below:

Metal Biocides Market, By Type:

Zinc

Silver

Copper & Alloys

Others

Metal Biocides Market, By End User:

Medical

Textile

Wood Preservation

Paints & Coatings

Food & Beverages

Pesticides

Others

Metal Biocides Market, By Region:

North America

United States

Canada

Mexico

Europe

France

United Kingdom

Italy

Germany

Spain

Asia-Pacific

China

India

Japan

Australia

South Korea

South America

Brazil

Argentina

Colombia

Middle East & Africa

South Africa

Saudi Arabia

UAE

Egypt

Competitive Landscape

Company Profiles: Detailed analysis of the major companies present in the Global Metal Biocides Market.

Available Customizations

Global Metal Biocides Market report with the given market data, TechSci Research offers customizations according to a company's specific needs. The following customization options are available for the report:

Company Information

Detailed analysis and profiling of additional market players (up to five).

Contents

1. PRODUCT OVERVIEW

- 1.1. Market Definition
- 1.2. Scope of the Market
 - 1.2.1. Markets Covered
 - 1.2.2. Years Considered for Study
 - 1.2.3. Key Market Segmentations

2. RESEARCH METHODOLOGY

- 2.1. Objective of the Study
- 2.2. Baseline Methodology
- 2.3. Key Industry Partners
- 2.4. Major Association and Secondary Sources
- 2.5. Forecasting Methodology
- 2.6. Data Triangulation & Validation
- 2.7. Assumptions and Limitations

3. EXECUTIVE SUMMARY

- 3.1. Overview of the Market
- 3.2. Overview of Key Market Segmentations
- 3.3. Overview of Key Market Players
- 3.4. Overview of Key Regions/Countries
- 3.5. Overview of Market Drivers, Challenges, Trends

4. GLOBAL METAL BIOCIDES MARKET OUTLOOK

- 4.1. Market Size & Forecast
 - 4.1.1. By Value
- 4.2. Market Share & Forecast
 - 4.2.1. By Type (Zinc, Silver, Copper & Alloys, Others)
 - 4.2.2. By End User (Medical, Textile, Wood Preservation, Paints & Coatings, Food & Beverages, Pesticides, Others)
 - 4.2.3. By Region
 - 4.2.4. By Company (2024)
- 4.3. Market Map

- 4.3.1. By Type
- 4.3.2. By End User
- 4.3.3. By Region

5. ASIA PACIFIC METAL BIOCIDES MARKET OUTLOOK

- 5.1. Market Size & Forecast
 - 5.1.1. By Value
- 5.2. Market Share & Forecast
 - 5.2.1. By Type
 - 5.2.2. By End User
 - 5.2.3. By Country
- 5.3. Asia Pacific: Country Analysis
 - 5.3.1. China Metal Biocides Market Outlook
 - 5.3.1.1. Market Size & Forecast
 - 5.3.1.1.1. By Value
 - 5.3.1.2. Market Share & Forecast
 - 5.3.1.2.1. By Type
 - 5.3.1.2.2. By End User
 - 5.3.2. India Metal Biocides Market Outlook
 - 5.3.2.1. Market Size & Forecast
 - 5.3.2.1.1. By Value
 - 5.3.2.2. Market Share & Forecast
 - 5.3.2.2.1. By Type
 - 5.3.2.2.2. By End User
 - 5.3.3. Australia Metal Biocides Market Outlook
 - 5.3.3.1. Market Size & Forecast
 - 5.3.3.1.1. By Value
 - 5.3.3.2. Market Share & Forecast
 - 5.3.3.2.1. By Type
 - 5.3.3.2.2. By End User
 - 5.3.4. Japan Metal Biocides Market Outlook
 - 5.3.4.1. Market Size & Forecast
 - 5.3.4.1.1. By Value
 - 5.3.4.2. Market Share & Forecast
 - 5.3.4.2.1. By Type
 - 5.3.4.2.2. By End User
 - 5.3.5. South Korea Metal Biocides Market Outlook
 - 5.3.5.1. Market Size & Forecast

- 5.3.5.1.1. By Value
- 5.3.5.2. Market Share & Forecast
 - 5.3.5.2.1. By Type
 - 5.3.5.2.2. By End User

6. EUROPE METAL BIOCIDES MARKET OUTLOOK

- 6.1. Market Size & Forecast
 - 6.1.1. By Value
- 6.2. Market Share & Forecast
 - 6.2.1. By Type
 - 6.2.2. By End User
 - 6.2.3. By Country
- 6.3. Europe: Country Analysis
 - 6.3.1. France Metal Biocides Market Outlook
 - 6.3.1.1. Market Size & Forecast
 - 6.3.1.1.1. By Value
 - 6.3.1.2. Market Share & Forecast
 - 6.3.1.2.1. By Type
 - 6.3.1.2.2. By End User
 - 6.3.2. Germany Metal Biocides Market Outlook
 - 6.3.2.1. Market Size & Forecast
 - 6.3.2.1.1. By Value
 - 6.3.2.2. Market Share & Forecast
 - 6.3.2.2.1. By Type
 - 6.3.2.2.2. By End User
 - 6.3.3. Spain Metal Biocides Market Outlook
 - 6.3.3.1. Market Size & Forecast
 - 6.3.3.1.1. By Value
 - 6.3.3.2. Market Share & Forecast
 - 6.3.3.2.1. By Type
 - 6.3.3.2.2. By End User
 - 6.3.4. Italy Metal Biocides Market Outlook
 - 6.3.4.1. Market Size & Forecast
 - 6.3.4.1.1. By Value
 - 6.3.4.2. Market Share & Forecast
 - 6.3.4.2.1. By Type
 - 6.3.4.2.2. By End User
 - 6.3.5. United Kingdom Metal Biocides Market Outlook

6.3.5.1. Market Size & Forecast

6.3.5.1.1. By Value

6.3.5.2. Market Share & Forecast

6.3.5.2.1. By Type

6.3.5.2.2. By End User

7. NORTH AMERICA METAL BIOCIDES MARKET OUTLOOK

7.1. Market Size & Forecast

7.1.1. By Value

7.2. Market Share & Forecast

7.2.1. By Type

7.2.2. By End User

7.2.3. By Country

7.3. North America: Country Analysis

7.3.1. United States Metal Biocides Market Outlook

7.3.1.1. Market Size & Forecast

7.3.1.1.1. By Value

7.3.1.2. Market Share & Forecast

7.3.1.2.1. By Type

7.3.1.2.2. By End User

7.3.2. Mexico Metal Biocides Market Outlook

7.3.2.1. Market Size & Forecast

7.3.2.1.1. By Value

7.3.2.2. Market Share & Forecast

7.3.2.2.1. By Type

7.3.2.2.2. By End User

7.3.3. Canada Metal Biocides Market Outlook

7.3.3.1. Market Size & Forecast

7.3.3.1.1. By Value

7.3.3.2. Market Share & Forecast

7.3.3.2.1. By Type

7.3.3.2.2. By End User

8. SOUTH AMERICA METAL BIOCIDES MARKET OUTLOOK

8.1. Market Size & Forecast

8.1.1. By Value

8.2. Market Share & Forecast

- 8.2.1. By Type
- 8.2.2. By End User
- 8.2.3. By Country
- 8.3. South America: Country Analysis
 - 8.3.1. Brazil Metal Biocides Market Outlook
 - 8.3.1.1. Market Size & Forecast
 - 8.3.1.1.1. By Value
 - 8.3.1.2. Market Share & Forecast
 - 8.3.1.2.1. By Type
 - 8.3.1.2.2. By End User
 - 8.3.2. Argentina Metal Biocides Market Outlook
 - 8.3.2.1. Market Size & Forecast
 - 8.3.2.1.1. By Value
 - 8.3.2.2. Market Share & Forecast
 - 8.3.2.2.1. By Type
 - 8.3.2.2.2. By End User
 - 8.3.3. Colombia Metal Biocides Market Outlook
 - 8.3.3.1. Market Size & Forecast
 - 8.3.3.1.1. By Value
 - 8.3.3.2. Market Share & Forecast
 - 8.3.3.2.1. By Type
 - 8.3.3.2.2. By End User

9. MIDDLE EAST AND AFRICA METAL BIOCIDES MARKET OUTLOOK

- 9.1. Market Size & Forecast
 - 9.1.1. By Value
- 9.2. Market Share & Forecast
 - 9.2.1. By Type
 - 9.2.2. By End User
 - 9.2.3. By Country
- 9.3. MEA: Country Analysis
 - 9.3.1. South Africa Metal Biocides Market Outlook
 - 9.3.1.1. Market Size & Forecast
 - 9.3.1.1.1. By Value
 - 9.3.1.2. Market Share & Forecast
 - 9.3.1.2.1. By Type
 - 9.3.1.2.2. By End User
 - 9.3.2. Saudi Arabia Metal Biocides Market Outlook

- 9.3.2.1. Market Size & Forecast
 - 9.3.2.1.1. By Value
- 9.3.2.2. Market Share & Forecast
 - 9.3.2.2.1. By Type
 - 9.3.2.2.2. By End User
- 9.3.3. UAE Metal Biocides Market Outlook
 - 9.3.3.1. Market Size & Forecast
 - 9.3.3.1.1. By Value
 - 9.3.3.2. Market Share & Forecast
 - 9.3.3.2.1. By Type
 - 9.3.3.2.2. By End User
- 9.3.4. Egypt Metal Biocides Market Outlook
 - 9.3.4.1. Market Size & Forecast
 - 9.3.4.1.1. By Value
 - 9.3.4.2. Market Share & Forecast
 - 9.3.4.2.1. By Type
 - 9.3.4.2.2. By End User

10. MARKET DYNAMICS

- 10.1. Drivers
- 10.2. Challenges

11. MARKET TRENDS & DEVELOPMENTS

- 11.1. Recent Developments
- 11.2. Product Launches
- 11.3. Mergers & Acquisitions

12. GLOBAL METAL BIOCIDES MARKET: SWOT ANALYSIS

13. PORTER'S FIVE FORCES ANALYSIS

- 13.1. Competition in the Industry
- 13.2. Potential of New Entrants
- 13.3. Power of Suppliers
- 13.4. Power of Customers
- 13.5. Threat of Substitute Product

14. COMPETITIVE LANDSCAPE

14.1. BASF SE

- 14.1.1. Business Overview
- 14.1.2. Company Snapshot
- 14.1.3. Products & Services
- 14.1.4. Current Capacity Analysis
- 14.1.5. Financials (In case of listed)
- 14.1.6. Recent Developments
- 14.1.7. SWOT Analysis

14.2. Clariant AG

14.3. Dow Inc.

14.4. Milliken Chemical Company

14.5. Lonza Group AG

14.6. Troy Corporation

14.7. SteriTouch Ltd

14.8. Noble Biomaterials Inc.

14.9. Renaissance Chemicals Ltd

14.10. LANXESS AG

15. STRATEGIC RECOMMENDATIONS

16. ABOUT US & DISCLAIMER

I would like to order

Product name: Metal Biocides Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Type (Zinc, Silver, Copper & Alloys, Others), By End User (Medical, Textile, Wood Preservation, Paints & Coatings, Food & Beverages, Pesticides, Others), By Region and Competition, 2020-2030

Product link: <https://marketpublishers.com/r/M3495C98D298EN.html>

Price: US\$ 4,500.00 (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/M3495C98D298EN.html>