

Biocide Market Size to Double by 2034, Reaching USD 18.66 Billion at 7.5% CAGR

global biocide market size was worth around USD 9.05 billion in 2024 and is predicted to grow to around USD 18.66 billion by 2034, (CAGR) of roughly 7.50%

PUNE, MAHARASHTRA, INDIA,
September 12, 2025 /

EINPresswire.com/ -- According to a new market research report, [the global biocide market Size](#), valued at approximately USD 9.05 billion in 2024, is projected to reach USD 18.66 billion

by 2034, expanding at a CAGR of 7.50% between 2025 and 2034. Rising demand for clean water, increasing awareness of hygiene and infection control, and growing use of biocides in industrial processes are key drivers of this market growth.

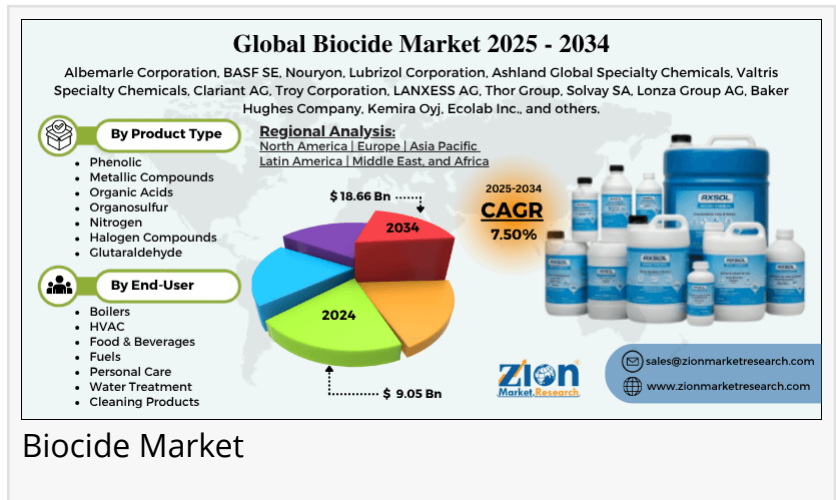
“

The global biocide market size was worth around USD 9.05 billion in 2024 and is predicted to grow to around USD 18.66 billion by 2034, (CAGR) of roughly 7.50% between 2025 and 2034.”

Deepak Rupnar

widely used in water treatment, paints and coatings, food processing, personal care, agriculture, and oil & gas industries to maintain hygiene, prevent contamination, and extend product shelf life.

The global biocide market has gained significant momentum over the past decade due to tightening environmental and safety regulations, increased industrialization, and heightened public health awareness. Technological advancements in eco-friendly biocides and bio-based formulations are opening new avenues for growth.



Access key findings and insights from our Report in this Free sample -

<https://www.zionmarketresearch.com/sample/biocide-market>

Market Overview

Biocides are chemical substances or microorganisms intended to control, deter, or eliminate harmful organisms, including bacteria, viruses, fungi, and algae. They are

Key Market Drivers

Rising Demand for Clean and Safe Water

Urbanization, industrial activities, and declining freshwater availability are driving demand for water treatment chemicals such as biocides to control microbial growth in municipal and industrial water systems.

Increasing Focus on Infection Control and Hygiene

The post-pandemic emphasis on sanitization in hospitals, food facilities, and public spaces has boosted the use of biocidal disinfectants.

Growth of Industrial Applications

Biocides are crucial in preventing microbial corrosion and contamination in oil & gas pipelines, paper mills, metalworking fluids, and cooling towers.

Technological Advancements in Green & Bio-Based Biocides

Rising environmental concerns are pushing manufacturers to develop low-toxicity and biodegradable biocides.

Regulatory Support for Safe Products

Governments are mandating the use of certified biocides in water treatment, food processing, and public health applications, ensuring consistent demand.

Do You Have Any Query Or Specific Requirement? Request Free Brochure:

<https://www.zionmarketresearch.com/requestbrochure/biocide-market>

Market Segmentation

The global biocide market can be segmented by product type, application, and end-use industry.

1. By Product Type

Halogen-Based Biocides

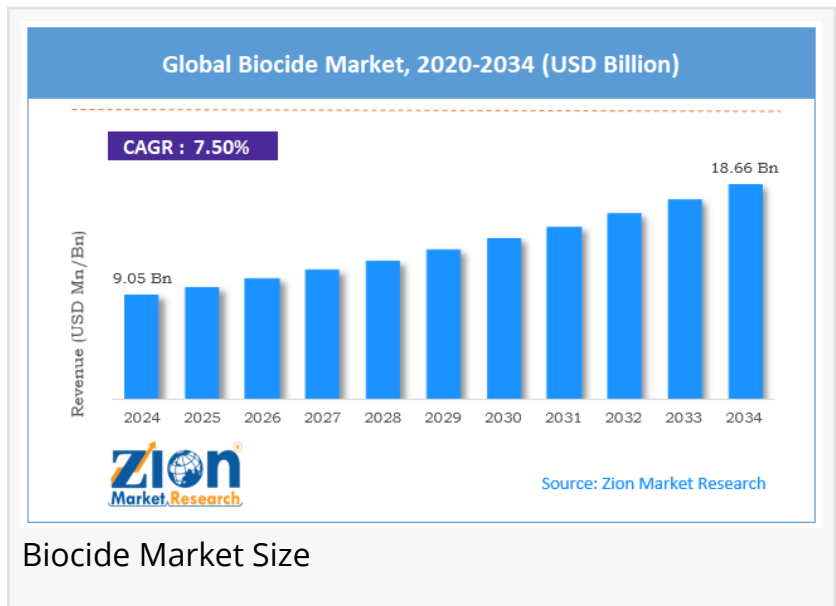
(Chlorine, Bromine, Iodine) – Widely used in water treatment due to strong antimicrobial properties.

Oxidizing Biocides

(Hydrogen Peroxide, Peracetic Acid, Ozone) – Preferred for environmentally friendly and quick-action disinfectants.

Non-Oxidizing Biocides

(Isothiazolinones, Glutaraldehyde, Quaternary Ammonium Compounds) – Used in industrial



processes, paints, and coatings.

Metal-Based Biocides

(Copper, Silver, Zinc Compounds) – Effective for long-term microbial control in coatings and textiles.

Natural & Bio-Based Biocides

Derived from plant extracts and microorganisms for eco-conscious consumers.

2. By Application

Water Treatment

Municipal and industrial water treatment plants, cooling towers, swimming pools, and wastewater treatment facilities.

Paints & Coatings

Prevent microbial growth, mold, and algae on surfaces.

Food & Beverage Industry

Sanitizing equipment, surfaces, and packaging to maintain hygiene.

Oil & Gas

Preventing microbial-induced corrosion and blockages in pipelines.

Personal Care & Cosmetics

Preservatives in creams, shampoos, and lotions.

Wood Preservation

Protecting timber from decay and insect damage.

Agriculture

Disinfection of tools, seeds, and irrigation systems.

3. By End-Use Industry

Municipal Services

Drinking water and wastewater treatment facilities.

Industrial Manufacturing

Paper & pulp, textiles, and metalworking fluids.

Healthcare & Pharmaceuticals

Infection prevention and hospital-grade disinfectants.

Construction

Biocide-infused paints, sealants, and coatings.

Consumer Goods

Household cleaning products and personal care items.

Regional Insights

The global biocide market shows strong regional variations based on regulatory environments, industrial activity, and water treatment infrastructure.

1. North America

Market Leadership:

North America held a significant share in 2024 due to well-established water treatment facilities, stringent environmental standards, and advanced healthcare infrastructure.

Key Countries: United States and Canada.

Trends: Growth of eco-friendly biocides, high consumption in oil & gas and power generation sectors, and increasing investments in antimicrobial technologies.

2. Europe

Regulatory-Driven Growth:

Europe has a mature biocide market governed by the EU Biocidal Products Regulation (BPR), ensuring safety and efficacy standards.

Key Countries: Germany, United Kingdom, France, Italy, Spain.

Trends: Rapid adoption of green biocides and increased demand from paints, coatings, and wood preservation sectors.

3. Asia Pacific

Fastest-Growing Region:

Asia Pacific is projected to register the highest CAGR between 2025 and 2034, driven by industrialization, urbanization, and growing demand for clean water.

Key Countries: China, India, Japan, South Korea, Australia.

Trends: Expansion of municipal water treatment facilities, rising oil & gas activities, and growing personal care manufacturing hubs.

4. Latin America

Emerging Market:

Rising investments in oil & gas, food processing, and water treatment sectors are boosting biocide demand.

Key Countries: Brazil, Mexico, Chile.

Trends: Adoption of non-oxidizing biocides in industrial applications and increased hygiene awareness in public facilities.

5. Middle East & Africa

High Potential Growth:

Growing demand for water treatment chemicals in arid regions and rising oil & gas production are major drivers.

Key Countries: Saudi Arabia, UAE, South Africa.

Trends: Partnerships with global biocide suppliers and government-backed initiatives for clean water projects.

Inquiry For Buying-<https://www.zionmarketresearch.com/inquiry/biocide-market>

Competitive Landscape

The global biocide market is moderately consolidated, with a mix of multinational corporations

and regional suppliers. Companies focus on R&D, regulatory compliance, and eco-friendly innovations to maintain their competitive edge.

Major Key Players:

BASF SE

Clariant AG

LANXESS AG

Solvay SA

Lonza Group AG

Veolia Water Technologies

Akzo Nobel N.V.

Stepan Company

Ecolab Inc.

Albemarle Corporation

Arxada AG (formerly Lonza Specialty Ingredients)

Thor Group Limited

Key strategies include:

Product Innovation: Developing bio-based and low-toxicity biocides.

Geographical Expansion: Targeting high-growth regions in Asia Pacific and the Middle East.

Partnerships & Acquisitions: Strengthening supply chains and broadening application portfolios.

Regulatory Compliance: Ensuring alignment with global safety standards such as EPA, EU BPR, and REACH.

Recent Industry Developments

Eco-Friendly Biocides: Manufacturers are investing in plant-derived active ingredients and biodegradable formulations to reduce environmental impact.

Advanced Delivery Systems: Encapsulation technologies enabling controlled release of biocides in paints and coatings.

Digital Monitoring in Water Treatment: Integration of IoT and smart sensors to optimize biocide dosing and reduce waste.

Customized Solutions: Tailored biocide formulations for niche applications such as aquaculture, specialty coatings, and medical device disinfection.

Challenges and Restraints

Despite strong growth prospects, the biocide market faces several challenges:

Stringent Regulatory Approvals: Compliance with diverse global standards can increase time-to-market and costs.

Environmental & Health Concerns: Certain chemical biocides pose toxicity risks, prompting bans or restrictions.

Price Volatility of Raw Materials: Rising costs of key chemical intermediates may impact profit margins.

Consumer Preference for Natural Alternatives: Growing shift toward green chemistry can disrupt

traditional product demand.

Future Outlook

The future of the global biocide market will be shaped by sustainability, technology, and regulatory alignment. Key trends include:

Shift to Green Chemistry: Greater emphasis on biodegradable, non-toxic, and renewable-resource-based biocides.

Integrated Water Management Solutions: Combining biocides with smart monitoring systems to enhance efficiency.

Increased Role of Healthcare & Hygiene: Expanding use of hospital-grade disinfectants and public health sanitizers.

Emergence of New Industrial Sectors: Growth in aquaculture, renewable energy, and specialty manufacturing creating new applications.

Customization & Specialty Formulations: Niche markets demanding targeted solutions for performance and safety.

By 2034, biocides will remain a critical component of water treatment, industrial processing, and public health protection, with innovation and sustainability driving the next wave of market growth.

Browse Other Related Research Reports from [Zion Market Research-](#)

Indoor Farming Technology Market by Growing System (Hydroponics, Aeroponics, Aquaponics, Soil-based, and Hybrid), by Components (Hardware and Software & Services), by Facility Type (Glass or Poly Greenhouses, Container Farms, Indoor Vertical Farms, and Indoor Deep Water Culture (DWC) Systems), and by Crop Type (Fruits & Vegetables, Herbs & microgreens, Flowers & Ornamentals, and Other Crop Types): Global Industry Perspective, Comprehensive Analysis and Forecast, 2024 - 2032-<https://www.zionmarketresearch.com/report/indoor-farming-technology-market>

Neuroprosthetics Market By Type Segment Analysis(Output Neural Prosthetics(Motor Prosthetics, Cognitive Prosthetics), Input Neural Prosthetics(Cochlear Implants, Bionic Eye/Retinal Implants)), By Technique Segment Analysis(Spinal Cord Stimulation, Deep Brain Stimulation, Vagus Nerve Stimulation, Sacral Nerve Stimulation, Transcranial Magnetic Stimulation), By Application Segment Analysis(Motor Neuron Disorders(Parkinson's Disease, Epilepsy), Physiological Disorders(Auditory Processing Disorders, Ophthalmic Disorders, Cardiovascular Disorders, Urology Disorders), Cognitive Disorders(Alzheimer's Disease, Paralysis)), and By Region: Global Industry Perspective, Comprehensive Analysis, and Forecast, 2024- 2032-<https://www.zionmarketresearch.com/report/neuroprosthetics-market>

Blockchain in Manufacturing Market by Application (Supply Chain Tracking, Process Transformation, Asset Sharing, Track and Trace, Warranty Management, and Others), by End-Use (Automotive, Consumer Electronics, Healthcare, Aerospace & Defense, Textile, Energy & Power, Food & Beverages, and Others), and By Region: Global Industry Perspective, Comprehensive

Analysis, and Forecast 2024-2032-<https://www.zionmarketresearch.com/report/blockchain-manufacturing-market>

Blockchain Identity Management Market by Deployment (Public, Private, and Hybrid Cloud), by Application (Multi-Factor Authentication, Password Management, Access Management, Directory Services, and Others), and by Vertical (BFSI, Retail, Logistics, Healthcare, Government, IT and Telecom, Media and Entertainment, Travel and Hospitality, and Others): Global Industry Perspective, Comprehensive Analysis, and Forecast, 2017-2024-
<https://www.zionmarketresearch.com/report/blockchain-identity-management-market>

Wax Market By Product (Synthetic (Paraffin And Microcrystalline) And Natural (Animal, Vegetable, And Mineral)), By Application (Candles, Packaging, Wood & Fire Logs, Rubber, Adhesive, Cosmetics, And Others), And By Region - Global And Regional Industry Overview, Market Intelligence, Comprehensive Analysis, Historical Data, And Forecasts 2024-2032-
<https://www.zionmarketresearch.com/report/wax-market>

Electronic Clinical Outcome Assessment (eCOA) Market by Type (Web Hosted, Licensed Enterprise, and Cloud-Based) and by Platform (Hospitals, CROs, Academic Institutes, Pharma & Biotech Organizations, and Medical Device Manufacturers): Global Industry Perspective, Comprehensive Analysis, and Forecast, 2024 - 2032-
<https://www.zionmarketresearch.com/report/electronic-clinical-outcome-assessment-market>

Diabetic Retinopathy Market by Type (Non-Proliferative Diabetic Retinopathy and Proliferative Diabetic Retinopathy) and by Management (Vitreectomy, Anti-VEGF Therapy, Laser Surgery, and Intraocular Steroid Injection): Global Industry Perspective, Comprehensive Analysis, and Forecast, 2024 - 2032-<https://www.zionmarketresearch.com/report/diabetic-retinopathy-market>

Blockchain Technology in Healthcare Market By Application (clinical data exchange & interoperability, supply chain management, and claims settlement & billing), By End user (healthcare payers, pharmaceutical companies, and healthcare providers), And By Region - Global And Regional Industry Overview, Market Intelligence, Comprehensive Analysis, Historical Data, And Forecasts 2024 - 2032-<https://www.zionmarketresearch.com/report/blockchain-technology-healthcare-market>

Industrial Gas Regulator Market By Type (Single Stage And Dual Stage), By Gas Type (Inert, Corrosive, And Toxic), By Material (Brass And Stainless Steel), By Application (Oil & Gas, Chemical, Medical Care, Steel & Metal Processing, And Food & Beverages), And By Region - Global And Regional Industry Overview, Market Intelligence, Comprehensive Analysis, Historical Data, And Forecasts 2024-2032-<https://www.zionmarketresearch.com/report/industrial-gas-regulators-market>

Equine Healthcare Market Analysis By Product (Drugs, Vaccines and Supplemental Feed Additives) By Disease (West Nile Virus, Equine Rabies, Equine Influenza, Equine Herpes Virus,

Potomac Horse Fever and Others), By Distribution Channel (Veterinary Hospitals and Clinics, Retail Pharmacies and Drug Stores and Others), and By Region: Global Industry Perspective, Comprehensive Analysis and Forecast, 2024-2032-

<https://www.zionmarketresearch.com/report/equine-healthcare-market>

Deepak Rupnar

Zion Market Research

+1 855-465-4651

[email us here](#)

Visit us on social media:

[LinkedIn](#)

[Instagram](#)

[Facebook](#)

[YouTube](#)

[X](#)

This press release can be viewed online at: <https://www.einpresswire.com/article/848434177>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2025 Newsmatics Inc. All Right Reserved.