+44 20 8123 2220
info@marketpublishers.com

Insect Repellent Active Ingredients Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Type (Diethyl Phenyl Acetamide, Ethyl Hexanediol, Nootkatone, Diethyl Carbonate, P-Menthane, N-Diethyl-Meta-Toluamide, Picaridin, Icaridin), By Ingredient (Citronella Oil, Soybean Oil, Lemon Eucalyptus Oil, Catnip Oil, Other Ingredients), By Insect (Flies, Ticks, Mosquitoes, Bugs, Mites, Moths), By Application (Cream, Sprays, Aerosols, Liquid Vaporizers, Essential Oil, Gel, Patches, others), By Region and Competition, 2019-2029F

https://marketpublishers.com/r/IA587D0A4CA4EN.html
Date: May 2024
Pages: 184
Price: US$ 4,900.00 (Single User License)
ID: IA587D0A4CA4EN

Abstracts

Global Insect Repellent Active Ingredients Market was valued at USD 1.07 Billion in 2023 and expected t%li%achieve a steady growth in the forecast period at a CAGR of 7.84% through 2029. In the agricultural sector, insect repellent active ingredients play a crucial role in protecting crops from harmful insects and boosting yield. These ingredients come in various forms, acting through different mechanisms t%li%deter insects from damaging plants. Derived from plants and other natural sources, these repellents use essential oils, extracts, and other compounds t%li%repel insects through scent or taste. Examples include neem oil, garlic oil, and pyrethrum (derived from chrysanthemums). Chemically synthesized compounds that work by disrupting insect behavior or causing discomfort. Examples include Imidacloprid, Fipronil, and Spinosad. Absorbed by plants and transported throughout their tissues, providing internal

protection against pests. Examples include Imidacloprid and Thiamethoxam. Repellents protect crops from insect damage, leading t%li%higher yields and increased profits for farmers. By safeguarding crops, repellents contribute t%li%improved food security by ensuring stable food production. Some repellent ingredients, like neem oil, offer a natural alternative t%li%conventional insecticides, potentially reducing dependence on harmful chemicals.

Insects remain a major threat t%li%crops worldwide, with estimates suggesting losses of up t%li%40% for some agricultural products. This translates t%li%significant economic losses for farmers and impacts the overall food supply chain. Therefore, the adoption of effective insect repellent active ingredients becomes financially imperative for farmers. Growing awareness of food safety and concerns over pesticide residues in food drive consumer demand for organically grown and minimally processed produce. This creates a market for natural and biodegradable insect repellent active ingredients, providing safer alternatives t%li%synthetic options. Modern agricultural practices increasingly embrace Focus on Integrated Pest Management (IPM) strategies that combine various methods for pest control. This includes the use of insect repellent active ingredients as a preventative measure alongside other techniques like biological control and habitat manipulation. This holistic approach reduces reliance on harmful chemical pesticides and fosters long-term sustainability.

Key Market Drivers

Increasing Crop Losses

Estimates suggest insects cause an astonishing 40% or more of crop losses worldwide, translating t%li%billions of dollars in economic damage and potential food shortages. Specific crops like fruits, vegetables, and cash crops are particularly vulnerable t%li%insect infestations, further impacting food chains and livelihoods. Climate change, with its erratic weather patterns and altered ecosystems, is exacerbating the problem by creating favorable conditions for certain insect species and accelerating their breeding cycles. The urgency t%li%protect crops from insect damage fuels the demand for potent and reliable insect repellent active ingredients. Manufacturers are constantly innovating and developing new ingredients and formulations t%li%address evolving insect threats and overcome resistance issues. Farmers directly bear the brunt of crop losses, motivating them t%li%invest in effective insect repellent technologies. Rising global population and stagnant agricultural yields necessitate maximizing crop production, making insect control a crucial element in meeting food demand. Increased awareness of pesticide residues in food fuels consumer demand for safer and more sustainable

pest control methods, driving the popularity of natural and biodegradable repellent ingredients.

Developing potent repellents that are safe for humans and beneficial insects remains a constant challenge. Some synthetic repellents can harm the environment and non-target insects. Finding eco-friendly alternatives is crucial for long-term sustainability. Ensuring farmers, especially in developing regions, have access t%li%affordable and effective insect repellent solutions is important t%li%ensure equitable food security. The battle against insect damage is dynamic, requiring ongoing research and development efforts t%li%stay ahead of evolving threats and maintain effective insect control. Increasing crop losses due t%li%insect damage are a pressing global challenge, fueled by a complex interplay of factors. The growing demand for insect repellent active ingredients reflects the urgency t%li%protect our food supplies and ensure food security for generations t%li%come. By embracing innovation, focusing on sustainability, and prioritizing accessibility, industry can play a vital role in safeguarding our agricultural ecosystem and creating a healthier future for all. This factor will help in the development of the Global Insect Repellent Active Ingredients Market.

Rapid Growth in Climate Change and Evolving Insect Populations

Increasing global temperatures create favorable conditions for certain insect species, expanding their geographical range and accelerating their breeding cycles. This leads t%li%a rise in insect populations and increased pressure on crops and human health. Changes in rainfall and humidity patterns disrupt ecosystems, causing shifts in insect migration patterns and creating temporary breeding grounds for mosquitoes and other disease-carrying insects. Climate change alters vegetation patterns and disrupts natural predator populations, potentially leading t%li%a surge in specific insect species and the diseases they carry.

Warmer temperatures and shorter winters can accelerate insect life cycles and breeding, leading t%li%faster evolution and development of resistance t%li%existing repellent ingredients. This puts pressure on manufacturers t%li%constantly innovate and develop new, effective formulations. Resistance t%li%one active ingredient can lead t%li%cross-resistance against similar ones, further complicating the effectiveness of existing repellents. Climate change may introduce new insect species int%li%previously unaffected regions, creating new pest and disease challenges that require novel repellent solutions.

The combined challenge of rising insect populations and evolving resistance

+44 20 8123 2220
info@marketpublishers.com

necessitates the development of more potent and broad-spectrum repellent active ingredients. With potential changes in insect distribution and species dominance, there's a growing demand for repellents tailored t%li%specific threats in different regions. Research and development efforts are focused on creating new repellent ingredients with novel modes of action and resistance-breaking mechanisms. Concerns about the environmental impact of some synthetic repellents drive the demand for eco-friendly and biodegradable alternatives. Climate change and evolving insect populations pose a significant threat t%li%global food security, public health, and environmental well-being. However, the rising demand for effective insect repellent active ingredients reflects a commitment t%li%addressing these challenges. By prioritizing innovation, sustainability, and accessibility, the industry can contribute t%li%developing robust solutions for insect control, mitigating the impact of climate change, and fostering a healthier future for all. This factor will pace up the demand of the Global Insect Repellent Active Ingredients Market.

Technological Advancements in Insect Repellent Active Ingredients

Development of insect-specific repellents using pheromones, attractants, and specific modes of action t%li%deter targeted pests while minimizing impact on beneficial insects. Encapsulating active ingredients in microscopic capsules allows for controlled release, targeting specific insect body parts, and reducing environmental impact. Combining multiple active ingredients with different mechanisms of action can create broad-spectrum protection and delay the development of resistance. Utilizing slow-release polymers or natural oils like neem oil enhances the longevity of repellent effects, reducing application frequency. Utilizing naturally occurring bacteria, fungi, or plant extracts as active ingredients for targeted pest control with minimal environmental impact. Incorporating insect-resistant genes int%li%crops through genetic engineering offers a long-term solution for specific pests, although ethical and regulatory considerations remain. Drones equipped with precision spraying systems can target specific areas and reduce overall pesticide use, promoting efficient and localized application.

Sensors can detect insect activity and trigger targeted releases of repellents, minimizing unnecessary application and optimizing resource use. Scientists are exploring the potential of RNA interference technology t%li%disrupt insect gene expression and prevent their reproduction, offering a novel approach t%li%pest control. Understanding and manipulating the microbial communities within crops may offer ways t%li%attract beneficial insects and deter harmful ones. Technological advancements in insect repellent active ingredients hold immense potential for the agricultural sector. By

offering targeted, sustainable, and effective solutions, these innovations can mitigate crop losses, reduce reliance on harmful chemicals, and promote a more resilient and environmentally friendly food production system. Continued research, collaboration, and farmer education are crucial for unlocking the full potential of these technologies and ensuring a food-secure future for generations t%li%come. This factor will accelerate the demand of the Global Insect Repellent Active Ingredients Market.

Key Market Challenges

High Raw Material Cost

Fluctuations in raw material costs, particularly for key ingredients like DEET and picaridin, can lead t%li%manufacturers raising product prices t%li%maintain profit margins. This can make essential insect repellents less accessible t%li%consumers, especially in low-income regions. High raw material costs squeeze manufacturers' profit margins and limit their ability t%li%invest in research and development of new active ingredients and formulations. This can stifle innovation and hinder market growth. Geopolitical issues, natural disasters, and other unforeseen events can disrupt the supply chain for raw materials, causing shortages and further price hikes. This creates uncertainty for manufacturers and impacts product availability for consumers. Manufacturers can mitigate risks by diversifying their sources of raw materials and building strong relationships with multiple suppliers. This can help them secure supplies and potentially negotiate better prices. Investing in alternative ingredients: Research and development efforts int%li%natural, plant-based, and synthetic alternatives with more stable and potentially lower cost production processes can offer long-term solutions. Optimizing production processes, reducing waste, and implementing sustainable practices can help manufacturers minimize raw material usage and lower production costs. Cooperation between manufacturers, research institutions, and government agencies can foster knowledge sharing, identify new potential sources, and explore cost-efficient alternatives for active ingredients.

Insect Resistance

Over-reliance on specific active ingredients like DEET and picaridin, coupled with inconsistent or improper application, accelerates the development of resistance in insect populations. Insects possess rapid breeding cycles and remarkable genetic adaptability, allowing them t%li%evolve resistance mechanisms against commonly used repellents over time. Resistance t%li%one active ingredient can even lead t%li%cross-resistance against similar ones, further complicating the effectiveness of existing repellents.

+44 20 8123 2220
info@marketpublishers.com

Repellents containing outdated or ineffective ingredients become less reliable, putting users at risk of insect bites and potentially contracting vector-borne diseases. Manufacturers need t%li%continuously invest in research and development of new active ingredients and formulations with novel modes of action t%li%stay ahead of resistance development. Regulatory bodies may need t%li%adapt approval processes and guidelines t%li%address emerging resistance patterns and ensure the safety and efficacy of repellents in the market. Promoting rotational use of different active ingredients and encouraging consumers t%li%employ a combination of repellent and protective measures like clothing and mosquit%li%nets can slow down resistance development. Educating consumers about the proper use of repellents, the risks of overuse, and the importance of diversifying repellent choices is crucial for responsible use and market adaptation.

Key Market Trends

Focus on Targeted Repellents

Unlike broad-spectrum repellents that target a range of insects, targeted options focus on specific species or families, like mosquitoes, ticks, or sandflies. This provides more effective protection against the relevant threat, while potentially minimizing exposure t%li%unnecessary chemicals. Traditional broad-spectrum repellents can harm non-target insects and pollute the environment. Targeted repellents often use natural or biodegradable ingredients, making them a more sustainable and eco-friendlier alternative. Consumers are increasingly aware of the potential downsides of conventional repellents. They are opting for options that offer targeted protection, with reduced risks for themselves and the environment. The focus on targeted repellents represents a promising evolution in the global insect repellent active ingredients market. By offering more precise, effective, and potentially safer solutions, targeted repellents address growing concerns about environmental impact and user safety while providing protection against specific insect threats. Continued research, development, and consumer education will be crucial for the continued success of this trend and its contribution t%li%public health and well-being.

Diversification of Active Ingredients

The growing problem of insect resistance t%li%traditional ingredients like DEET necessitates the development of new active ingredients with novel modes of action. This reduces the reliance on single compounds and slows down the development of resistance across the board. Traditional repellents may raise concerns about potential

+44 20 8123 2220
info@marketpublishers.com

health risks and environmental impact. Consumers are increasingly seeking safer, natural, and biodegradable alternatives, prompting the exploration of plant-based ingredients and innovative formulations. A wider range of active ingredients increases the likelihood of finding effective solutions against resistant insects and diverse insect threats. Natural and biodegradable alternatives offer safer options for users and minimize environmental impact. Diversification enables the development of repellents specifically tailored t%li%address regional and species-specific concerns. A wider range of products attracts new customer segments and opens growth opportunities for manufacturers. Increased variety empowers consumers t%li%choose repellents that best suit their needs and preferences.

Segmental Insights

Type Insights

Based on type, the Ethyl Hexanediol emerged as the dominating segment in the Global Insect Repellent Active Ingredients Market during the forecast period. EHD boasts an excellent safety profile, making it suitable for sensitive skin and for use around children and pets. Unlike DEET, it doesn't cause skin irritation or pose neurotoxicity concerns. EHD exhibits good repellency against a wide range of insects, including mosquitoes, ticks, and flies. Its long-lasting effect further adds t%li%its appeal. Consumers are increasingly seeking natural and eco-friendly alternatives t%li%synthetic repellents. EHD derives from castor oil, making it a plant-based and biodegradable option. This aligns with current consumer trends and environmental consciousness. EHD readily blends with various cosmetic ingredients, allowing for diverse product formulations like lotions, sprays, and wipes. This versatility provides manufacturers with flexibility and caters t%li%different consumer preferences. EHD has already secured approval from major regulatory bodies like the US EPA and the European Union, which paves the way for smoother market entry and wider adoption.

Application Insights

Based on application, the Liquid Vaporizers emerged as the fastest growing segment in the Global Insect Repellent Active Ingredients Market during the forecast period. Liquid vaporizers are incredibly easy t%li%use and require minimal effort. Simply plug them in, turn them on, and enjoy insect-free zones. This is especially appealing for busy families or those wh%li%dislike applying topical repellents. Unlike sprays or creams that need frequent reapplication, liquid vaporizers offer long-lasting protection, often lasting for several hours. This makes them ideal for outdoor activities like camping, picnics, or

+44 20 8123 2220
info@marketpublishers.com

backyard barbecues. Liquid vaporizers can effectively repel insects over a larger area compared t%li%topical repellents. This is particularly beneficial for patios, decks, or enclosed spaces like tents or gazebos. Liquid vaporizers come in various sizes, from portable models for personal use t%li%larger units suitable for bigger spaces. They offer a range of active ingredients and fragrances, catering t%li%diverse preferences and needs. Many liquid vaporizers are formulated with child- and pet-safe ingredients, making them a good choice for families with little ones or furry friends. However, it's always crucial t%li%check the specific product label and follow safety instructions carefully.

Regional Insights

Based on region, North America emerged as the dominant region in the Global Insect Repellent Active Ingredients Market in 2023. North America has a well-established insect repellent market with a long history of using and innovating these products. This translates t%li%a large and stable consumer base, driving demand for active ingredients. Compared t%li%other regions, consumers in North America generally have higher disposable incomes, leading t%li%greater spending on insect repellents, particularly for outdoor activities like camping, hiking, and gardening. North America has a high awareness of insect-borne diseases like Lyme disease, West Nile virus, and tick-borne illnesses. This awareness fuels demand for effective insect repellents and incentivizes research and development efforts within the region. Government initiatives and public health campaigns further amplify awareness and promote the use of insect repellents, contributing t%li%market growth. The regulatory framework in North America, particularly the US, is relatively well-developed for insect repellents. This ensures safety and efficacy standards, fostering trust among consumers and attracting manufacturers. While regulations can pose challenges, the established framework als%li%provides clarity and stability for businesses operating in the market.

Key Market Players

BASF SE

Bugg Products LLC.

Cangzhou Panoxi Chemical Co. Ltd.

Sumitom%li%Chemical Co., Ltd.

+44 20 8123 2220
info@marketpublishers.com

Coghlan's Ltd.

Enesis Phrama Ltd.

Godrej Consumer Products Limited

Hefei Tnj Chemical Industry Co. Ltd.

Henkel AG & Co. KgaA

Merck KGaA

Report Scope:

In this report, the Global Insect Repellent Active Ingredients Market has been segmented int%li%the following categories, in addition t%li%the industry trends which have als%li%been detailed below:

Insect Repellent Active Ingredients Market, By Type:

Diethyl Phenyl Acetamide

Ethyl Hexanediol

Nootkatone

Diethyl Carbonate

P-Menthane

N-Diethyl-Meta-Toluamide

Picaridin

Icaridin

Insect Repellent Active Ingredients Market, By Ingredient:

+44 20 8123 2220
info@marketpublishers.com

Citronella Oil

Soybean Oil

Lemon Eucalyptus Oil

Catnip Oil

Other Ingredients

Insect Repellent Active Ingredients Market, By Insect:

Flies

Ticks

Mosquitoes

Bugs

Mites

Moths

Insect Repellent Active Ingredients Market, By Application:

Cream

Sprays

Aerosols

Liquid Vaporizers

Essential Oil

Gel

Patches

+44 20 8123 2220
info@marketpublishers.com

Others

Insect Repellent Active Ingredients Market, By Region:

North America

§ United States

§ Canada

§ Mexico

Europe

§ Germany

§ United Kingdom

§ France

§ Italy

§ Spain

Asia Pacific

§ China

§ Japan

§ India

§ Australia

§ South Korea

+44 20 8123 2220
info@marketpublishers.com

South America

§ Brazil

§ Argentina

§ Colombia

Middle East & Africa

§ South Africa

§ Saudi Arabia

§ UAE

Competitive Landscape

Company Profiles: Detailed analysis of the major companies presents in the Global Insect Repellent Active Ingredients Market.

Available Customizations:

Global Insect Repellent Active Ingredients Market report with the given market data, Tech Sci Research offers customizations according t%li%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 t%li%five).

+44 20 8123 2220
info@marketpublishers.com

Contents

+44 20 8123 2220
info@marketpublishers.com

6. NORTH AMERICA INSECT REPELLENT ACTIVE INGREDIENTS MARKET OUTLOOK

+44 20 8123 2220
info@marketpublishers.com

7. EUROPE INSECT REPELLENT ACTIVE INGREDIENTS MARKET OUTLOOK

+44 20 8123 2220
info@marketpublishers.com

8. ASIA PACIFIC INSECT REPELLENT ACTIVE INGREDIENTS MARKET OUTLOOK

+44 20 8123 2220
info@marketpublishers.com

9. SOUTH AMERICA INSECT REPELLENT ACTIVE INGREDIENTS MARKET OUTLOOK

+44 20 8123 2220
info@marketpublishers.com

+44 20 8123 2220
info@marketpublishers.com

+44 20 8123 2220
info@marketpublishers.com

+44 20 8123 2220
info@marketpublishers.com

I would like to order

Product name: Insect Repellent Active Ingredients Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Type (Diethyl Phenyl Acetamide, Ethyl Hexanediol, Nootkatone, Diethyl Carbonate, P-Menthane, N-Diethyl-Meta-Toluamide, Picaridin, Icaridin), By Ingredient (Citronella Oil, Soybean Oil, Lemon Eucalyptus Oil, Catnip Oil, Other Ingredients), By Insect (Flies, Ticks, Mosquitoes, Bugs, Mites, Moths), By Application (Cream, Sprays, Aerosols, Liquid Vaporizers, Essential Oil, Gel, Patches, others), By Region and Competition, 2019-2029F

Product link: https://marketpublishers.com/r/IA587D0A4CA4EN.html

Price: US$ 4,900.00 (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/IA587D0A4CA4EN.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

Custumer signature _____

+44 20 8123 2220
info@marketpublishers.com

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