

Biocide Preservatives & Treated Articles

Industry Issue Overview

Biocides are Essential for Coatings

The importance of biocide use for in-can paint and coatings preservation and protection from microbial attacks cannot be overstated. The market growth and public acceptance of water-based paint and coatings over the past 30 years has only been possible with the use of effective biocide preservation.

The term biocide has come to encompass a wide range of materials that control the growth of unwanted, harmful microorganisms in the environment such as mould, mildew, and algae. Biocides are needed to support public health, safety, and environmental protection. The CASE industry acknowledges that biocides can be hazardous substances at high levels, and fully embraces its responsibility to maintain proper safeguards when selecting and mixing biocides at prescribed, safe levels required by the federal Government. This is exactly what industry does, which is accomplished by close industry collaboration with government agencies charged with protecting public health and the environment.

Biocides Help Extend Product Life-cycles & Support Recycling Efforts

Biocides safely used for in-can film preservation allow for paint to be safely stored, re-used, and recycled throughout the product life-cycle.

Preserving CASE Products with Antimicrobial Control

Biocide use is regulated in Canada by the Pest Management Regulatory Agency (PMRA), which is a federal agency of Health Canada. An antimicrobial or pesticide treated article is a product or material to which an antimicrobial preservative has been intentionally incorporated to prevent contamination from microorganisms (e.g., inhibit bacterial growth). Antimicrobial preservatives are commonly used to extend the durability or shelf-life of the treated product or material.

In 2017, PMRA decided to severely restrict three registered biocides from their normal and effective use levels in Canada, one of which was an essential in-can preservative. CPCA responded by formally challenging PMRA's decision using study data and further exposure evidence to argue that the continued use of these biocides, at current levels, was not

harmful to human health or the environment. It also argued that due to the lack of available alternative substances, the use of these biocides remained crucial for the continued manufacturing of water-based paint products in Canada. Luckily the ban of the in-can preservative OIT was reversed and still used in Canada today. This will continue to occur if there is no transparency as to how final decisions are made especially how actual efficacy data is assessed and then used.

Unfortunately, in 2023 the PMRA also banned and/or greatly reduced use levels in critical biocides for in-can paint preservation causing misalignment with the United States where the US EPA has not taken similar actions, with no intention to do so soon. Thus, the same scientific data used in both Canada and the United States led to different final decisions causing Canadian companies to lose critical ingredients necessary for product preservation. This has already had a negative impact on the production of products requiring biocide protection from these recently banned biocides. As a result, the production of certain products in Canada using these specific biocides, historically shipped to the United States, has already shifted that production to their US sites. It's unclear the full impact this has had, but it will indeed impact the economy and good-paying jobs in Canada.

CASE Industry Reliance on Biocides

Microbial attack (i.e. mold and mildew) on painted surfaces is a wide-ranging and universal concern that has resulted in a global, coordinated strategy to combat it. Without it the impact on human health and the environment could be worse as many CASE products would spoil and consumers might be exposed to microbes from spoiled products with less antimicrobial protection. The prospect of harm is greater than any harm 'potentially' caused by a small dose of preservative.

The impact of microbial growth is not limited to the degradation of applied paint films but also occurs during the production and storage of coatings. Increasingly paint products have embraced waterborne technology, using formulations that are low in volatile organic compounds (VOC's) and solvents, with lower emissions during application and drying. Like all water-based products, paints require "in-can" preservatives to protect them from spoilage. Without these biocides, waterborne paint would fail in storage, first losing their viscosity, then progressing to malodor before ultimately causing a complete product breakdown. In



Biocides are needed to support public health, safety, and environmental protection. They protect against bacteria, mould and germs.



extreme cases, the microbial decomposition can generate gases that rupture the container.

The Canadian paint and coatings industry is a global leader in the re-use and recycling of leftover paint. Over 22 million kilograms of leftover paint was diverted from landfills in 2023, enough to paint 2.1 million homes. Without sufficient in-can biocide preservatives, leftover water-based paint will NOT likely be recycled due to product breakdown and microbial contamination of more products than in the past.

CPCA Regulatory Focus on Biocides & Treated Articles

To address the issue of misalignment, CPCA and PMRA brought together industry and government experts to form the Coatings and Adhesives Working Group (CAWG) for the exchange of technical information in support of PMRA's plan to evaluate and re-evaluate preservatives registered for use in Canada. Over the past two years PMRA's key focus has been on transforming the Agency to modernize processes, improve information access and increase real-world data. Consultations continue on policy development for the Continuous Oversight of Pesticides, updating the fees regime and understanding the approach to how value assessment and efficacy is done for risk assessment by PMRA assessors.

Articles may only be treated with substances that are registered for use in Canada and sold in Canada, according to specific regulations under the Pest Control Products

Act (PCPA). These products are classified as either "biocidal treated articles" or "intentionally incorporated biocidal products" and subject to. Canada's approach to antimicrobial treated articles requires alignment with similar jurisdictions such as the United States, which is Canada's largest trading partner by far. Nearly 50 per cent of the value of all paint and coatings sold in Canada is imported from the United States. Both jurisdictions have not been subject to similar biocide bans or restrictions thereby placing Canadian made products at a competitive disadvantage. Nearly 50 per cent of the value of all paint and coatings sold in Canada is imported from the United States. Both jurisdictions have not been subject to similar biocide bans or restrictions thereby placing Canadian made products at a competitive disadvantage.



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About CPCA

The Canadian Paint and Coatings Association (CPCA) was founded in 1913 and since then it has forged a legacy as one of Canada's oldest trade associations advocating for the interests of the paint and coatings industry. CPCA's team of regulatory and chemical experts understand how policy, regulations, and industry are intricately connected, providing proactive approaches on legislative and regulatory development for critical issues for the CASE Industry. For more information on this or other issues of interest contact CPCA.