Microbial Control

DUPONT™

Playing it safe

The truth behind personal care's most utilized preservative

Bacteria and fungi are naturally present on our skin, in the air and even in the water we drink. Not only can microbial growth cause contamination – which impacts a product's look, feel, smell and performance – but can result in serious health problems, like infection. From shampoo to sunscreen, consumers trust in their personal care products, which is why safety is of critical importance.

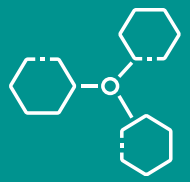
What is a Preservative?

Preservatives are essential ingredients used to prevent the growth of microorganisms – such as bacteria, yeast and mold – in personal care products like lotions, hair products and baby wipes. They are critical for protecting products from microbial growth due to unintentional contamination that could be harmful to consumers.

Key market applications:

- Baby wipes
- Makeup
- Shampoo
- Liquid soaps
- Sunscreen

What is Phenoxyethanol?



Introduced in the 1950s, phenoxyethanol (POE) has had a long history of safe use as a personal care preservative. In recent years, the use of POE has expanded with approval from regulatory groups worldwide. This is – in part – because the preservative is not likely to cause an allergy when consumers use personal care products.

Did you know?

While POE used in personal care is typically synthetic, it does **occur naturally in green tea**.[1]

POE has been shown to be readily biodegradable and **will biodegrade in wastewater** treatment plants, as well as other water and soil environments.[2]

Some of the most commonly used cosmetic preservatives are also approved as **safe for use in food and drugs**.

[1]Source: W Paulus, ed, Directory of Microbicides for the Protection of Materials–A Handbook, Springer Verlag, New York (2005)
[2]Source: Cosmetics & Toiletries

Regulatory Events

2011

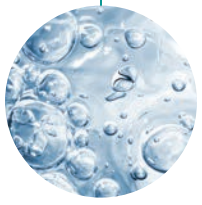
France's National Agency for the Safety of Medicine, Health Products and Cosmetics (ANSM) proposed **reducing the maximum approved level for children under 3 from 1% to 0.4%** based only on a partial review of available data.

1990

POE was reviewed by the Cosmetic Ingredient Review (CIR) Expert Panel in the U.S., and was concluded to be **"safe as a cosmetic ingredient in the present practices of use and concentration,"** generally in concentration less than 1%.

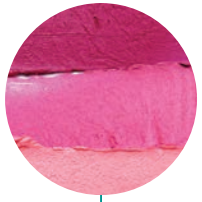
2014

The European Commission (EC) responded by mandating the Scientific Committee on Consumer Safety (SCCS) to conduct a review. **The industry submitted a full safety dossier as a result.**



2016

The SCCS issued an opinion endorsing POE as **safe for use at a maximum concentration of 1% for all product uses, with no restriction in any category**, including products intended for children.[3] The final report was published by the EC on March 1, 2017.[4]

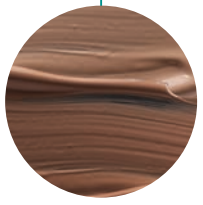


2017

The CIR conducted a review that **reconfirmed POE as safe at the maximum use concentration of 1%.**[5] No further review is planned or expected.

2017

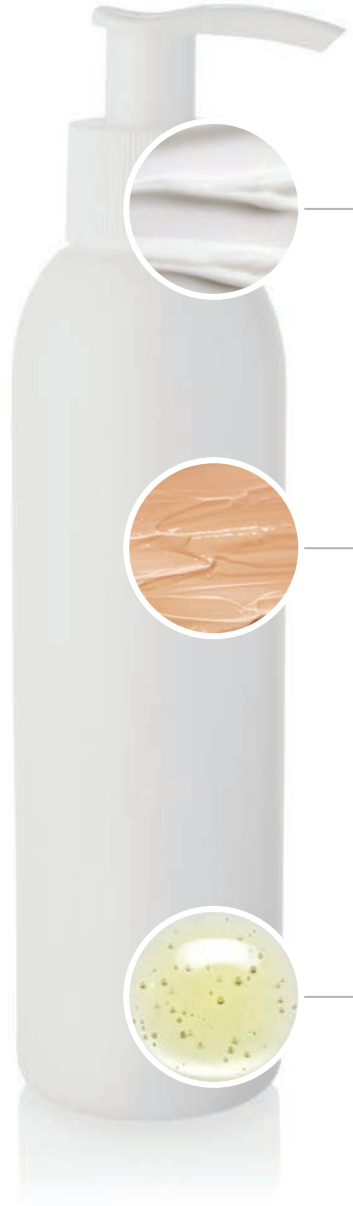
Clinical patch-test results from a study conducted by the North American Contact Dermatitis Group on patients with skin disorders showed a **very low frequency (0.2%) of allergy to POE in concentration at 1%**.



[3]Personal Care Products Council, STATEMENT BY HALYNA BRESLAWEC, CHIEF SCIENTIST PERSONAL CARE PRODUCTS COUNCIL ON THE SAFETY OF PHENOXYETHANOL
[4]Source: European Commission, Cosmetics Directive, Annex V.
[5]Source: Cosmetics & Toiletries

Safety Reviews

Despite positive safety reviews, manufacturers continue to feel pressure from retailers, NGOs and some regulators to limit or restrict the use of POE, especially in baby products.



Rest assured of the following:

Preservatives undergo rigorous safety assessments and quality testing before they are sold for use in personal care products under federal and international law.

Manufacturers perform additional testing on products containing these preservatives to assure the products are safe. This additional testing takes into account reasonably predictable consumer behavior in terms of use, handling and storage – including assuring that the products are adequately preserved and protected from microbiological contamination to keep consumers safe.

Scientific and regulatory bodies around the world have reviewed the use of these preservatives as used in cosmetics and found them to be safe.

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