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OralCare

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Teeth Whitening

November 2022

Teeth discoloration and staining are a result of various dyes and pigments attaching to the organic matter of your teeth. The process of lifting these stains is most commonly achieved by two methods: physical removal and chemical bleaching.

EURECO™ HC is a unique auxiliary material for cosmetics, which readily delivers superior bleaching performance and disinfection under mild and safe conditions. It is safe for your enamel as it does not use an abrasive whitening method. Instead, it oxidises teeth stains, which provides effective results with no sensitivity, gum irritation or enamel etching.

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HARKE PersonalCare is happy to advise you on the formulation of whitening products that will bleach your teeth and still work safely. In the following we describe the ingredient PAP and its properties for whitening.

Whitening Process

Physical removal targets superficial staining (surface level daily stains) through an abrasive method of action. Chemical bleaching works on both superficial and embedded stains (stains embedded in the teeth enamel), so it's the most common and effective method of teeth whitening.

So How Does Chemical Bleaching Remove Stains From Teeth?

Teeth whitening through chemical bleaching oxidises stains and alters the molecules that are responsible for holding color. Simply put, the bleaching agents enter through the enamel of teeth and break down these molecules into smaller, simpler forms. The smaller the molecule, the lighter in color, resulting in an overall whiter appearance of the teeth.

Difference Between Peroxide & PAP

Some common bleaching agents include Hydrogen Peroxide, Carbamide Peroxide, and Phthalimidoperoxycaproic Acid (PAP).

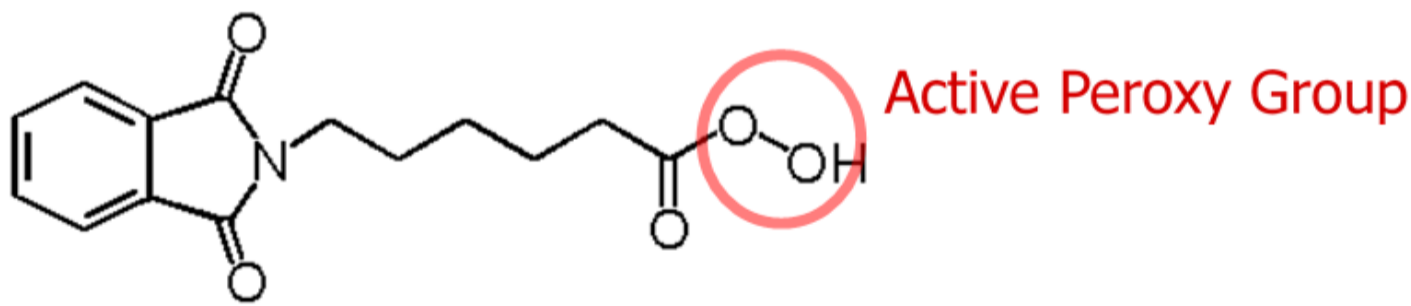
Both PAP whitening and peroxide-based teeth whitening treatments use oxidising action to break down stains and lighten teeth appearance. As part of this process, peroxide releases something known as free radicals. Free radicals readily attack

organic molecules to reduce discoloration, but are also likely to cause unwanted side effects such as sensitivity, gum irritation, and demineralisation.

PAP similarly reacts with teeth stains, only without the release of free radicals. This means that the molecules responsible for discoloration are broken down safely, without any risk of sensitivity, pain, or damage.

EURECO™ HC (Health Care)

EURECO™ is the registered trade-mark of Solvay for its commercial preparations based upon "PAP", a preformed peracid developed and patented by Solvay.



	EURECO™ HC P11	EURECO™ HC L17
INCI	PHthalimidoperoxycaproic Acid	PHthalimidoperoxycaproic Acid
PAP content	11%	17%
Appearance	Powder	Liquid
Recommended use concentration*	Max 7% (powder)	Max 4,5% (suspension)
Application	Toothpaste, bleaching powder	Mouthwash, gel splints
Retesting after...	6 month	12 month

* The % figures mentioned are the max values of 0.1% H₂O₂ allowed in toothpaste with bleaching systems. 0.1% H₂O₂ corresponds to 0.8% PAP.

EURECO™ HC – the Mildest Chemical Bleaching Agent – Offers:

- Superior bleach performance on teeth stains
- Visible whitening effects in a few applications
- Long lasting bacteria load reduction in the mouth
- Anti-plaque effect
- Deodorization



Imprint

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