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# Amiperfect

*A Perfect Complexion*

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- The first plant-based salicylic acid, purified wintergreen extract
- 100% natural and ecoresponsible active cosmetic ingredient
- For skin seeking perfection and radiance

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## A.M.I., your Ecoresponsible Partner

Expert in beauty since 1978, Alban Muller International develops its products in an ecoresponsible approach: from the seed to the final product, each step is monitored, and everything is done to limit the impact on Man and the Environment.

### The Key Points of our Ecoresponsible Approach

#### Quality and Safety of our Supply

- Monitoring the origin of our plants, mostly cultivated close to our factory
- Monitoring our cultivating techniques in line with the *Guideline on Good Agricultural and Collection Practices (GACP) for Starting Materials of Herbal Origin* issued in 2006 by EMA (European Medicines Agency)
- Monitoring our plants after harvesting (identification, content in active principles and contaminants)

#### Monitoring our Impact on the Environment

- An ISO 14001-certified manufacturing site
- Selecting renewable and biodegradable raw material
- Optimised, eco-clean manufacturing processes
- Reducing our water consumption
- Sustainable waste-management (recycling)
- Treating effluents through our Filtering Gardens
- Monitoring the carbon balance of our manufacturing site

#### Partners who Share our Values

- The Herboretum Association  
[www.herboretum.org](http://www.herboretum.org)
- The Cosmetic Valley  
[www.cosmetic-valley.com](http://www.cosmetic-valley.com)

“Ongoing  
Innovation in the  
Respect of Man and  
the Environment”



## Innovation - Amiperfect: The First Natural Salicylic Acid

If you are looking for solutions to meet the ever-increasing market demand for natural products and meet consumers' expectations concerning naturalness and safety, Alban Muller International is your ecoresponsible partner to support you in this approach. We are experts in research into plant-origin active principles and the formulation of natural products, developing innovative solutions to offer natural, effective alternatives to the synthetic substances commonly used.

This is the case of salicylic acid which our research laboratories have succeeded in isolating from wintergreen leaves to create **Amiperfect**, a 100% natural, ecoresponsible active ingredient dedicated to achieving a perfect, radiant complexion.

### Amiperfect - For a perfect complexion

- **Natural** salicylic acid for the first time in cosmetics
- Purified wintergreen extract
- 100% natural and ecoresponsible active cosmetic ingredient

#### Keratolytic, anti-microbial, anti-inflammatory

- ➔ Promoting the elimination of dead cells and the regeneration of the epidermis

#### Two main applications

- **Purity:** to purify the skin and smooth out blemishes
- **Anti-ageing:** to reduce wrinkles and reveal a radiant complexion
- ➔ **Targets:** oily and/or mature skin, and any skin type seeking perfection and radiance

#### INCI Name

*Gaultheria Procumbens (Wintergreen) Leaf Extract*

#### PCPC Trade Name (soon)

*Wintergreen Natural Salicylic Acid*

A pure plant-based molecule



## A 100% Natural and Ecoresponsible Ingredient

### A renewable plant source: wintergreen

Alban Muller International looked into wintergreen as its leaves contain an essential oil which is rich in salicylate derivatives and particularly suitable for the development of a natural salicylic acid.

#### *Focus on...* Wintergreen, a plant used in traditional medicine

Wintergreen is an evergreen sub-shrub from Canada which grows in the pine forests and underbrush of North America.

It was known by the American Indians who used it in traditional medicine to treat various ailments (headache and backache, fever, etc.). Decoctions were used for gargling to treat sore throats or applied in the form of compresses to ease skin inflammations.

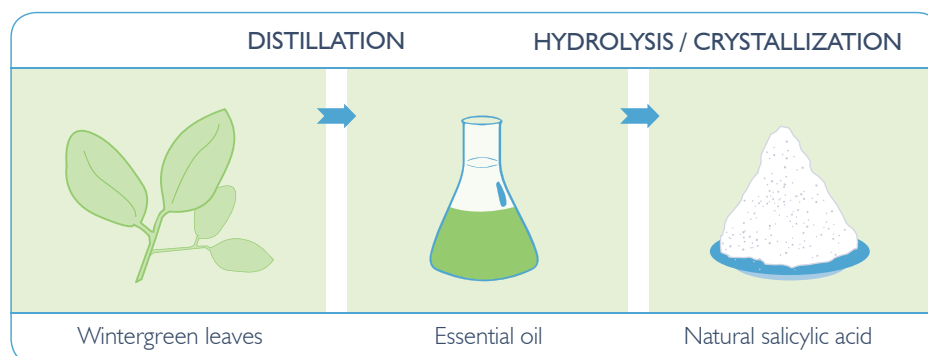


Later, analysis of the active ingredients revealed the presence of methyl salicylate. William Procter isolated this compound from the essential oil in 1844 and Auguste Cahours hydrolysed it to salicylic acid. It was also in the 19<sup>th</sup> century that the American founder of phototherapy, Samuel Thomson, developed amedication based on lily of the valley and wintergreen to treat water retention.

The American Indians also used wintergreen in their food, eating the fruit and preparing a refreshing drink with the leaves. They also used the fermented leaves to flavour meat and fish dishes. Moreover, an infusion of wintergreen leaves was used during the American War of Independence (1776-1784) as a substitute for tea.

### An ecoresponsible production process

To extract the pure salicylic acid molecule, our experts have worked from wintergreen essential oil by distilling the leaves. This essential oil containing a high concentration of methyl salicylate is then hydrolysed to isolate the salicylic acid which is completely natural.



*From the leaf to the molecule*

## Amiperfect: Perfect Skin and Radiant Complexion

Salicylic acid has been recognised and used for many years in cosmetics for three main activities, keratolytic, anti-microbial and anti-inflammatory. Amiperfect is therefore useful for two applications: purity and anti-ageing. In your skincare products, it naturally refines the skin texture for a smoother, softer skin and a perfect glowing complexion.

### Purity and freshness

Salicylic acid has powerful anti-microbial and anti-inflammatory properties which are ideal to purify and soothe oily skin. These properties combined with the keratolytic action of salicylic acid unblock pores and eliminate excess sebum. Result with Amiperfect: a finer, more even skin texture, a glowing complexion!

In hair care, the keratolytic action of salicylic acid soothes squamous conditions of the scalp, causing dandruff, and associated itching.



#### Ideas for applications

- purifying, soothing care for oily skin
- perfecting care, bb creams
- care for oily, dandruff-prone hair

### Anti-ageing and radiant complexion

The keratolytic activity of salicylic acid, which gives it its exfoliating properties, allows superficial desquamation of the keratinous layer. This so-called "chemical" exfoliation facilitates cell renewal, the enhancement of collagen production and the regeneration of the upper layers of the epidermis.

Salicylic acid makes the skin firmer and plumped up from within, and helps it to fight the effects of ageing more effectively. Wrinkles and fine lines are smoothed, skin texture is refined and the complexion glows with radiance and youth.



#### Ideas for applications

- anti-ageing and anti-wrinkle care
- resurfacing care, peeling
- perfecting care, bb creams
- care to restore radiance and fight a dull complexion

### Conditions for use of salicylic acid as an active cosmetic ingredient

Salicylic acid is a substance subject to restrictions. It must be used in compliance with the local regulations currently applicable. In Europe, it can be used in cosmetic products in accordance with the following conditions:

#### Maximum quantities for use

- $\leq 3\%$ : in rinse-off hair products
- $\leq 2\%$ : for other products

Not to be used in preparations for children under 3 years of age, except for shampoos.

#### Advice for formulation

- Salicylic acid disperses in water up to 0.5%. Beyond this amount, you are advised to add the salicylic acid in the aqueous phase first and then add soda little by little until complete dispersion.
- Formulation with an acid pH to ensure optimum efficacy.

## Toxicological Data

### Toxicological safety assesment on our ingredient

➤ The toxicological expertise concludes that using Amiperfect under the recommended conditions for use in cosmetics does not represent any foreseeable risk to health.



### Other toxicological data on salicylic acid

➤ According to the report drafted in 2003 by the experts of the C.I.R (Cosmetic Ingredient Review), the use of salicylic acid "is not toxic when formulated so as to avoid irritations and an increase in sensitivity to UV light".

However, the experts stress the precautions to be taken for use as an exfoliant, in particular with regard to the increased risk of damage caused by exposure to UV light. In other words, the C.I.R and the FDA strongly recommend that in this case, sun filters should be added to formulas containing salicylic acid.

## Know More About Salicylic Acid

Salicylic acid is a salicylate aromatic phenolic compound classed as a BHA (Beta-HydroxyAcid).

Its medicinal properties have been known for many years. The discovery of its properties originates in the many uses for willow in traditional medicine. Decoctions of leaves were used for pain relief in Ancient Egypt according to the Ebers papyrus and in Greece, Hippocrates recommended preparations based on the bark to ease fevers.

In 1825, the Italian pharmacist Fontana isolated the active ingredient in white willow and named it "salicine" in reference to the botanical name for the tree, *Salix*. In 1829, the French scientist Leroux obtained white crystals from a decoction of concentrated bark which he christened "salicyline". In 1823, Piria synthesised salicylic acid from salicin. This was more effective but more aggressive for the stomach. Then Hermann Kolbe prepared salicylic acid synthetically by the action of sodium phenate on carbon dioxide. In 1897, the German chemist Hoffman from the Bayer company synthesised acetylsalicylic acid, which is the basis for aspirin, from meadowsweet.

In 1882, the German dermatologist Unna demonstrated that this molecule was able to dissolve the keratinous layer when sufficiently concentrated. Salicylic acid therefore has several useful cosmetic effects.

In the plant world, salicylic acid also has a key role in the transduction of the signal linked to the resistance of plants to pathogens. Today several natural sources of salicylic acid are known: willow, birch, meadowsweet and wintergreen.

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