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Salicylic Acid Research Paper

APPEARS INS

Three Ships' Refresh Foaming Cleanser incorporates Aspen Bark extract powder as a natural derivative for Salicylic Acid. The Aspen Bark powder was tested for its Salicylic Acid content and was found to contain about 60% of the same phenolic compounds detected in Salicylic Acid. The Refresh Foaming Cleanser is best suited for people with oily-combination skin and is great for combatting acne.

SALICYLIC ACID PLAYS A HUGE ROLE IN COMBATTING CONCERNS LIKE ACNE AND CLOGGED PORES

The bark of the Aspen tree is rich in salicylates that may function as the plant's natural defense mechanism against invading parasites. The salicylates in Aspen Bark may also be used for medicinal purposes. Salicylate is the chemical compound that is found naturally in plants and is the predecessor of Salicylic Acid.

Salicylic Acid is also known as a beta-hydroxy acid (BHA) which is an anti-acne compound that works as a chemical exfoliant and is popular in skincare meant for people with acne. Salicylic Acid's structure is similar to aspirin and also has some anti-inflammatory properties.

Salicylic Acid is an oil-soluble compound that is made up of one benzene ring, with two adjacent functional groups (a carboxylic and hydroxy group).

Traditionally, Aspen Bark is first tested for compliance before it is washed and cleaned. Once it has been cleaned, it will then be submerged into a solvent to undergo aqueous extraction since salicylate is water-soluble. After the bark has been submerged for long enough, the solvent is filtered to get rid of any undesirable plant matter. To ensure quality control, the filtered solution is analyzed to see if the aqueous batch is up to standard, and then it is spray-dried on powder.

This powder ingredient form makes it easier for the manufacturer to ship and for formulators to easily blend the ingredient into products such as the Refresh Foaming Cleanser. However, the exact process of extraction method for the Aspen Bark that Three Ships sources is proprietary information.

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SALICYLIC ACID IS LESS IRRITATING COMPARED TO OTHER EXFOLIATING ACIDS

Salicylic Acid is a compound that is lipophilic, meaning it wants to dissolve and attract other oil compounds. Typically the oiliest parts of our facial skin are the T-zone area, which includes the forehead and nasal area, and Salicylic Acid likes to concentrate on those areas. Due to its lipophilic properties, it also concentrates within pores, where the sebaceous gland produces sebum and exactly where Salicylic Acid needs to go.

The key function of Salicylic Acid within our pores is decreasing corneal site cohesion. Salicylic Acid will absorb into the pore because it wants to concentrate into an oil such as the sebum and, here, it helps to unstick the skin cells that are causing the pore to clog. Since Salicylic Acid has a strong preference for lipids, it does not show much of an effect on the rest of the skin. It leaves the stratum corneum (top skin layer) unbothered, and only really wants to interact with the sebum within pores.

Due to its similar chemical structure to aspirin, Salicylic Acid also has some anti-inflammatory properties, which combats one of the four main factors contributing to acne. Salicylic Acid will also form crystals on your skin and within your pores. The crystals on the top layer of our skin will rinse off, but the ones in pores will remain, which gives a prolonged anti-acne effect. Interestingly, Salicylic Acid also provides some UVB protection due to the benzene's ring structure, however, it is not recommended by Three Ships to use in place of any SPF.

SCIENTIFIC STUDY

The Cellular Renewal Rate of Aspen Bark Extract Powder

Aspen Bark powder was evaluated for its ability to accelerate cell renewal by Dansyl Chloride protocol. This protocol essentially measures the effects of the Aspen Bark powder on amino acids. The results indicated that 2% of Aspen powder was capable of increasing cellular renewal by 26% when compared to untreated control. In comparison to the 1% Salicylic Acid solution, the Aspen Bark powder increased cell renewal by 13.5% more.

The findings of this study suggest that incorporating Aspen Bark extract powder brings the ability to better exfoliate the skin for a smoother look.

Aspen Bark Extract is a natural source of Salicylic Acid that is used in Three Ships products like the Refresh Papaya + Salicylic Acid Cleanser. Salicylic Acid is a popular skincare ingredient, however, this popularity is justified as studies have been conducted to support the skin smoothing claims of the ingredient. Overall, Salicylic Acid is a BHA that works as a chemical exfoliant to fight acne and clogged pores to produce smoother looking skin.