EVERYDAY COMPOUNDS: SALICYLIC ACID

Salicylic acid is found naturally in many plants, & can be isolated from willow tree bark. Unripe fruits & vegetables are natural sources of salicylic acid.

**AS A KERATOLYTIC AGENT**
Salicylic acid is present in acne creams & wart treatment as a keratolytic agent; it softens keratin, the proteins that make up the outer layer of skin, by increasing the amount of moisture in the skin, and assists the exfoliation of skin cells.

**AS AN ANTI-DANDRUFF AGENT**
As a keratolytic agent, salicylic acid is also found in anti-dandruff shampoos. It helps loosen dry skin on the scalp and remove dry skin flakes.

Most of the anti-dandruff shampoos that use it will contain around 2-3% salicylic acid.

**AS AN ANTIBACTERIAL AGENT**
Sodium salicylate is the sodium salt of salicylic acid, and has antibacterial properties. It is for this reason that it can be found in some toothpastes & mouthwashes. Sodium salicylate is also used, along with salicylic acid, as a food preservative due to its antiseptic properties.

**AS A PRECURSOR MOLECULE**
Salicylic acid is reacted with acetic anhydride, using sulfuric acid or phosphoric acid as a catalyst, to produce aspirin. Aspirin has analgesic and anti-inflammatory properties. It is one of the most widely used medications in the world, with around 40,000 tonnes of it being consumed each year.