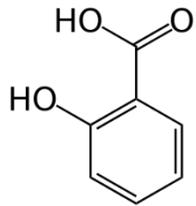


SALICYLIC ACID PRODUCT INFORMATION SHEET

General information		<p>Product Description: Salicylic acid (Hydroxybenzoic acid) is a white, colorless crystalline powder. SA is commercially prepared by treating sodium phenolate (the sodium salt of phenol) with carbon dioxide at high pressure (100 atm.) and high temperature (390K), a method known as the Kolbe-Schmitt reaction. Acidification of the product with sulfuric acid gives SA.</p> <p>Salicylic acid can get deep into your skin to do its job. This quality makes salicylic acid such a potent ingredient for targeting acne — especially for blackheads and whiteheads.</p> <p>Once it penetrates the skin, salicylic acid dissolves skin debris that clogs pores, acts as an anti-inflammatory and also helps red inflamed pimples and pustules go away faster.</p> <p>The ingredient can penetrate so deeply into skin that actually breaks down the connections between skin cells. Once it has penetrated the skin, the acid part of the molecule can dissolve some of the intracellular 'glue' that holds skin cells together.</p> <p>Salicylic acid also loosens and breaks apart desmosomes (attachments between cells in the outer layer of skin). This 'desmolytic' action encourages exfoliation of skin and unclogging of pores.</p>
Product Name	Salicylic acid	
INCI Name	Salicylic acid	
CAS No.	69 – 72 – 7	
EINECS No.	200 – 712 – 3	
Molecular Formula	C ₇ H ₆ O ₃	
Molecular Weight	138.12 g/mol	
Structural Formula		<p>Chemical Stability and Compatibility: Salicylic acid inactivated, when pH of the product rises to neutral or alkaline. It is incompatible with iron salts. It is sensitive to UV light.</p> <p>It is slightly soluble in water (1 gm in 460 ml) in the acid form but is soluble in ethanol(alcohol).</p> <p>It usually works best at a concentration of 1-2%, at a pH level of 3 to 4.</p> <ul style="list-style-type: none"> When formulating clear, water-based solutions, the key consideration is solubilization. SA can be solubilized using ethanol, glycols, and nonionic ethoxylated fatty alcohols. The PH of the formulation is also a critical factor since it dramatically affects both solubility and efficacy. When formulating 2% SA at a PH of 3, the best strategy is to solubilize the SA using 42% ethanol and isoceteth 20 (Brij IC20 – Croda). Since SA easily penetrates skin, adding a material like Polyolprepolymer-15 (PEG-8 / SMDICopolymer – Barnet Products) can be useful to increase the deposition of salicylic acid in the upper layers of the stratum corneum and to reduce skin irritation. Another consideration when formulating at a PH of 3 is to avoid using ester-based materials that can hydrolyze. SA formulations should contain a good chelant to

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Corporativo Antara, Torre 1, Piso 5, Miguel de Cervantes Saavedra No. 250, Miguel Hidalgo, Ciudad de México, C.P. 11520.

Tel: 56 1686 5168 E-mail: ecoworkers.internacional@ecoworkers.net

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		<p>prevent discoloration due to reacting with trace iron. SA can also be formulated into alcohol-free, oil-in-water emulsions by first solubilizing the SA using an emollient like Arlamol PS15E (PPG-15 Stearyl Ether – Croda). This oil phase can then be emulsified into an aqueous gel containing acid-stable thickeners like Sepigel 305, Aristoflex AVC, or Synthalen CR. (Polyquaternium 37 – 3V).</p>
Specification		<p>Shelf Life: If stored at ambient temperature, in the original sealed container, Salicylic Acid has an initial shelf life of Five years.</p>
Description	White or almost white crystalline powder	
Melting range	158 – 161°C	
Loss on drying	0.5% Max.	
Residue on ignition	NMT 0.05%	
Chlorides	NMT 100 ppm	<p>Recommended Use Levels: Salicylic Acid is a topical ointment used to treat psoriasis, acne, warts, corns, and other dry/scaly skin conditions. Typical dose levels of Salicylic acid up to 0.5%</p> <p>The Scientific Commission on Cosmetic Products and Non-Food Products recommended, it be allowed up to 2% for leave-on products and 3% for rinse-off products.</p>
Assay	98% to 102.0% on dried basis	