

WS SA50[™]

Water Soluble Salicylic Acid

At last - an easy way to design unique
salicylic acid formulations



WS SA50™

Salicylic acid (SA) is a white crystalline phenolic acid $C_7H_6O_3$ powder which is poorly soluble in water (0.2g/100ml at 20°C), therefore difficult to prepare solutions of SA that remain precipitate-free.

SA is commonly used in many skin care and OTC products. Topical SA is widely found in creams, lotions, liquids, gels, ointments, shampoos, wipes, pads, and patches for application to the skin or scalp.

SA is a multi-tasking ingredient that can overcome skin conditions. It is a must for anyone prone to acne, due to its exfoliating nature. As an anti-irritant, it has the ability to soothe stressed skin, reduce redness and work as an anti-inflammatory to calm breakouts on skin. It is also a keratolytic active, therefore an excellent exfoliator.

In order to address formulator challenges, Tagra has developed a unique solution: **WS SA50™** water soluble SA in a dry powder form (50% w/w) based on Tagra's **WS Tech™** innovative unique technology (Fig 1, 2).

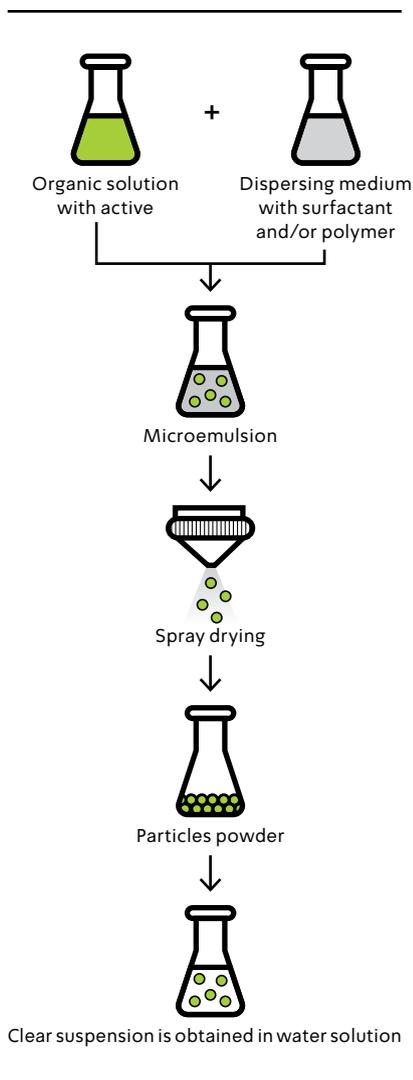


Figure 1.

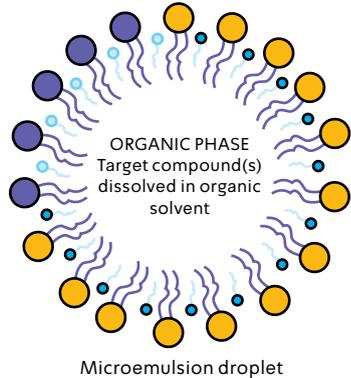
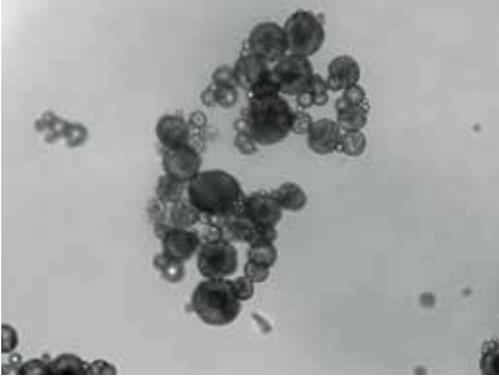


Figure 2. Light microscopy observation of WS SA50™ dispersed in mineral oil

WS SA50™ Formulatory Benefits

- Increased water solubility to 5g/100ml compared to 0.2g/100ml of the free SA
- Formulating with WS SA50™ results with pH of 3–5
- No need for organic solvents for solubilizing SA – new water based formulations can be prepared with less irritation profile
- No risk of crystallization
- WS SA50™ can be incorporated at room temperature using simple paddle mixer or homogenizer if needed

Tagra's WS Tech™ is an innovative technology based on the formation of microemulsions to form particles which are water-dispersible, organic solvent-free and in dry powder form (Fig.1).

Tagra's unique technology leads to a significant increase in aqueous solubility without high-energy investment (Fig.2).

Applications

The WS SA50™ can be used in various applications, such as: skin care, sun care, hair care (shampoos, conditioners), aerosol products (sun spray, deodorants etc.), cleansers and more.

INCI: Salicylic Acid & Sodium Polyacrylate

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For more information and samples please contact: info@tagra.com