

Sulfosuccinic Acid: A new cosmetic ingredient/intermediate

While sulfosuccinic acid derivatives, especially esters are already well known in the cosmetic ingredient sector, the use of sulfosuccinic acid itself and its sodium salts is quite new. This material has a variety of interesting chemical properties, which are of importance for the cosmetic ingredient segment. Sulfosuccinic acid is readily biodegradable similar to its ester compounds and is currently already used as stabilizing agent in emulsions for hair or skin care. But in addition to that this molecule has two further applications of great interest.

First it can act as a chelating agent for various metal ions potentially fostering a preservative boosting effect. The talk given at Chemspec 2018 will therefore contain the newest insights on investigations to determine a preservative boosting effect of this compound at different concentrations on various established cosmetic preservative systems.

Second this compound can act as biodegradable crosslinker for hydrogels. Thus this talk will give insights on ESIM's latest developments of natural polymers which are crosslinked by sulfosuccinic acid and are able to form hydrogels similar to Carbomers (Polyacrylic acid derivatives). Carbomers are well known crude-oil based crosslinked polymers forming hydrogels, which can be used as emulsion stabilizers and thickeners, but also as suspending and viscosity increasing agents in aqueous systems. As these materials are not biodegradable, the industry is currently looking for adequate substitutes. ESIM's recently developed hydrogels prepared by crosslinking natural polymers such as starch, cellulose derivatives, carrageenans or alginates using the biodegradable crosslinking agent sulfosuccinic acid could offer alternatives to traditional Carbomers. Such new compounds could consequently satisfy the current market need for bio-based/natural and biodegradable alternatives to Carbomers.



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