Olivamidopropyl betaine, derived from olive oil, makes it easier to boost the viscosities of natural and sulphate-free shampoos.

Besides having good foaming and cleansing action, a good quality shampoo needs a set of rheological properties that will allow it to flow well when the bottle is tipped, dispense easily if in a pump container, needs to have the right appearance and consistency in the hand, and needs to be easy to spread into the hair.

Shampoos also often need to suspend particles such as anti-dandruff agents, colloidal oatmeal, pearlising agents and encapsulated actives. Shampoos can be sensitive to temperature - the viscosity can increase at temperatures below 20 °C which could make them difficult to pour, or at higher temperatures, they could become unstable. It is thus important to measure the viscosities over a realistic temperature range. Another factor that also contributes towards the rheology of shampoos are the phase behaviour i.e. the way the surfactants form three-dimensional structures in the product.

Since the geometrical structures of the surfactant molecules can affect the phase behaviour (one of many factors), and hence the viscosity, we wanted to put the olivamidopropyl betaine to the test. It made sense to take one of our thinner natural shampoo formulations that contains cocamidopropyl betaine as a co surfactant and substituting part of the cocamidopropyl betaine with olivamidopropyl betaine. The latter in itself has a gel-like appearance and as expected, the viscosity of our shampoo increased.

Polygreen® Tensolive, the Aqia tradename for olivamidopropyl betaine, like other amphoteric surfactants, is a co-surfactant recommended for shampoos, conditioners, cleansing lotions and emulsions. In shampoos and liquid soaps, Polygreen® Tensolive is compatible with anionic, cationic and non-ionic surfactants. In shampoos and liquid soaps, it must be associated with anionic surfactants which improves its foaming characteristics, viscosity, wet and dry combing, shine and conditioning. It can be used with multiple surfactant systems.

The chemical structure of **Polygreen® Tensolive** allows for the higher resulting viscosity when compared to cocamidopropyl betaine in the same surfactant system. As with cocamidopropyl betaine, it modifies the foam structure, making it creamier and more stable than systems without a betaine derivative. The positively charged molecule makes it substantive, hence conditioning, to hair and skin. It is stable in acidic and alkaline pH and can decrease irritation caused by anionic surfactants and

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other ingredients in the formulation.

INCI name: Olivamidopropyl betaine

For comprehensive information, a quote or a sample, please contact our office.

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