

# Technical Data Sheet

## Glyceryl Caprylate

- > Viscosity regulator
- > Penetration enhancer for actives
- > Powerful antimicrobial activity
- > Preservative boosting agent
- > Globally approved
- > Multifunctional additive
- > 100% natural
- > INCI: Glyceryl Caprylate



This product stand for modern preservation. With the access to new and sustainable technologies the possibilities of safe preservation have changed fundamentally in the personal care industry . Nature -identical food preservatives have gained attention as well as antimicrobial, multifunctional ingredients. These act as boosting agents for mild and skin friendly preservatives or allow to even work completely without traditional preservatives . The idea behind this product line is that with smart solutions formulators can create a product as safe as with traditional preservatives that are sometimes less skin-friendly and very often subject to criticism of consumers.

Glyceryl Caprylate is a totally vegetable based glycerol-monoester well known to be powerful in respect to its antimicrobial efficacy. Short-chained monoesters like Glyceryl Caprylate have been known for their preservative boosting and antimicrobial effect for decades .Today we know that among others their antimicrobial effect makes them very populär for modern personal care products. Glyceryl Caprylate has -due to its chain length a good balance between water solubility and efficacy and has found broad use in the personal care industry. At reasonable dosage -and formulation cost -it shows an excellent boosting and preservation effect. Interestingly long chained glyceryl monoesters like Glyceryl Stearate or Glyceryl Behenate do not have antimicrobial properties but are widely used as texturizers in emulsions.

As with many other multifunctionals the chain length of a glycerol monoester defines its efficacy , water-solubility and further properties . Within the Product range and with our recommendations you will find the right ingredient for every application.

## Glyceryl Caprylate

Glyceryl Caprylate is a moisturizer, skin conditioner and a good aid for achieving highly homogenous droplet dispersion in O/W emulsions. Experienced formulators know and use the viscosity decreasing effect and the accelerated emulsion formation. However, this raw material is mostly known for its antimicrobial effect and boosting capability in cosmetic formulations. The short chain glyceryl monoesters generally show a good efficacy against microorganisms, but within this group Glyceryl Caprylate stands out in terms of efficacy. When studied in detail there are differences between the members of the glycol family. According to published MIC-data, Glyceryl Caprylate for instance is active against bacteria, yeast and mold - even at low concentration.

When studied in formulations with preservative efficacy tests (PET), the performance of Glyceryl Caprylate can well be established in almost every formulation. Also the prediction of needed concentration in finished products becomes more precise with PET in comparison to MIC. Glyceryl Caprylate, like other amphiphilic antimicrobials shows a good boosting and synergistic effect with any other preservative.

The mode of action of Glyceryl Caprylate is based on its amphiphilic structure, i.e. it comprises a hydrophilic as well as a lipophilic part within the molecule. This structural element weakens the cell membrane of most micro-organisms and helps to eliminate them. This explains also why it can act as potent penetration enhancers and thus help many active ingredients to be delivered to their target in deeper skin.

Properties of Glyceryl Caprylate	
Appearance	White waxy solid
INCI	Glyceryl Caprylate
Recommended dosage	0,3 - 0.7 %
pH-range	4.0 - 7.5



## Application

Example concentrations: 0.7 % when used as a moisturizer with strong preservative effect  
0.5 % use as moisturizer & preservative booster  
0.3 % used as a preservative booster

Solubility: water and oil soluble

Formulation Tipps:

- a) : add product to the water phase
- b) : add product to the final formulation at the end of the production process
- c) : mix directly with lipophilic actives/extracts to use Glyceryl Caprylate as a solubilizer

## Packing and Storage

Storage conditions: The product should be stored in a dry place protected from direct sunlight, heat

Shelf life: unopened Container and when stored under proper conditions

The information provided corresponds to our current state of knowledge. It has been carefully compiled and is intended to assist the user in his examination. However, they do not release him from his duty of care. We cannot guarantee the correctness of the contents.