



**CremerOL 1,3-propanediol (1,3-PDO) from CREMER OLEO has a variety of outstanding properties that make it an ideal ingredient in cosmetics:** The transparent and almost odorless liquid has a demonstrably high antimicrobial effect without irritating the skin. As a result, many formulations require fewer preservatives. It is a natural moisturizer with better moisturising effect than 1,2-propanediol and 1,3-butanediol. Propanediol mixes well with other cosmetic ingredients and can even enhance their effect. In shampoos, 1,3-propanediol reduces the viscosity. This simplifies application and allows manufacturers to use less sodium chloride (NaCl).

## » PORTFOLIO

- **CremerOL**  
1,3-propanediol | 1,3-PDO | propane-1,3-diol  
Non GMO | gluten-free  
INCI: Propanediol  
CAS No. 504-63-2  
REACH registered

## » PRODUCT FEATURES

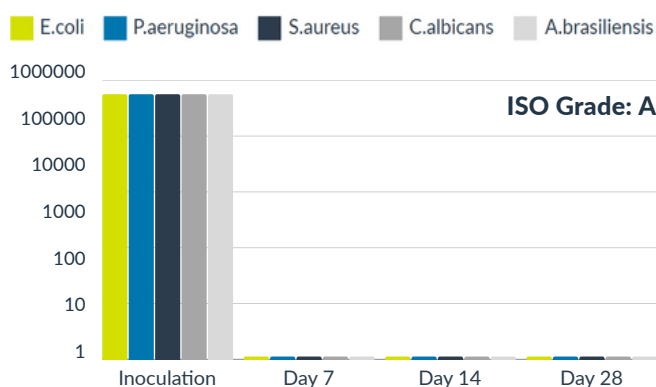
- Antibacterial effect
- Moisturizer
- Excellent skin sensation / non-irritating
- Viscosity booster
- Patented manufacturing process (nearly 90% CO<sub>2</sub> saving)

## » REDUCED CO<sub>2</sub> EMISSIONS THANKS TO INNOVATIVE, PATENTED PROCESS

CremerOL 1,3-propanediol from CREMER OLEO is produced from 100% biomass in an innovative, technically advanced process developed with scientists at the University of Hamburg. The unique fermentation process using *Clostridium pasterianum* C8 saves energy and reduces CO<sub>2</sub> emissions in production by nearly 90%.

## » ANTIBACTERIAL EFFECT

Serum with 0.8% phenethyl alcohol  
+ 5% CremerOL at pH 6.5



## » CREMER OLEO STANDARDS

### VARIETIES

100% derived natural ingredients  
(acc. to ISO 16128), COSMOS approved

### FORM

Liquid

### PACKAGING

Steel/HDPE Drums (200 kg),  
IBC Tank (1 ton)

### CERTIFICATIONS

RSPO/MB

Further variants on request.