

## Natural Emulsifier 146

natural, cold-process emulsifier

INCI: Cyclodextrin, Sorbitol, Polyglyceryl-3 Diisostearate

Meet our cold process, 100% naturally-derived emulsifier, Natural Emulsifier 146.

This ready-to-use powder can create a range of textures from sprays to lotions via O/W (oil-in-water) emulsions and can emulsify many vegetable oils, even in formulas with up to 60% oil. It's lightweight and leaves a dry, smooth skin feel.

### Formulation Guidelines

Using Natural Emulsifier 146 is as easy as adding it to cold water and mixing! It works best when formulated in conjunction with a water phase thickener and apolar oils.



Add Natural Emulsifier 146 to your cold water phase and disperse for 10 minutes at 1,500 - 2000 rpm.

Increase mixing speed to 2,500 - 3,000 rpm and slowly add your oil phase.

Maintain 3,000 rpm for an additional 30 minutes, until mixture is homogenous.

### best thickeners

xanthan gum  
polyacrylate crosspolymer-6  
hydroxyethylcellulose  
bentonite

### best oils

plant oils  
mineral oils  
silicones  
the more apolar... the better!

#### Applications

Sprays • Lotions • Creams

#### Use Level

2 - 8%

#### pH Range

4 - 10

#### Build Viscosity

NaCl • CaCl<sub>2</sub>

#### Ecology

ISO 16128 NOI 1 • Readily Biodegradable

### Tips and Tricks

- This thickener is most stable and works best when used in conjunction with other thickeners like xanthan gum.
- Do not heat this emulsifier over 45°C. If you have to heat your formulation, add Natural Emulsifier 146 upon cool down, when the formula has reached 40°C.
- Viscosity is independent of pH and is relatively stable over pH 4 - 12. Viscosity can be adjusted using electrolytes such as Sodium Chloride or Calcium Chloride. With a 35% oil phase and pH of 6.5, 2% of either will raise viscosity by approximately 2,000 cps.

### Regulatory

See Safety Data Sheet for full composition, details and safety precautions. Store in a closed container in a dark, cool place. Retest date is 3 years from date of manufacture. For external use only, keep out of reach of children.