We create chemistry

Technical Information

Luvigel® EM

Care Chemicals

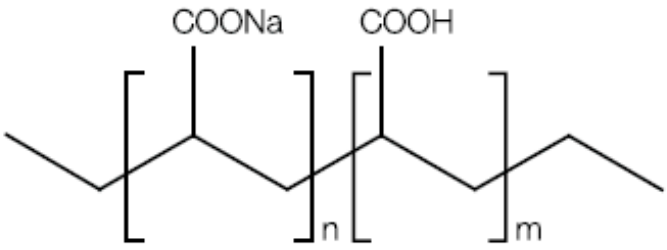
Emulsifying Polymer / Rheology Modifier

INCI name(s)
Caprylic/Capric Triglyceride (and) Sodium Acrylates Copolymer

Chemical description
Caprylic/Capric Triglyceride, Sodium Acrylates Copolymer

Physical form:
Emulsion

Structural Formula



CASR-No.	Ingredient
73398-61-5	Glycerides, mixed decanoyl and octanoyl
9003-04-7	2-Propenoic acid, homopolymer, sodium salt

Characteristic values

The specifications stated in the paragraphs 'Quality control data' and 'Additional product descriptive data' finally and conclusively describe the properties of the product.

Quality control data
(Data which is used for quality release and is certified for each batch.)

Test property	Specification	Test method
Appearance	White to slightly yellowish w/o emulsion	PM/01055
Odor	Characteristic	PM/01340
Viscosity (Brookfield, RVT, Sp. 4, 20 rpm, 23 °C)	3000 - 10000 mPas	PM/00744
Non volatile matter (3 h, 140 °C)	49.0 - 52.0 g/100 g	PM/01074
Content of Polymer	23.0 - 27.0 g/100 g	PM/01543

Care Creations™

Typical values

(For information purposes only, not part of the guaranteed specifications.)

Property	Value
pH	6 - 7

Storage information

Shelf life
30 months

Storage temperature
Between + 5 °C and + 30 °C

Storage conditions
In original sealed containers and protected from moisture

Additional information
Storage temperature ≤ 0 °C leads to the following phenomena: Coagulation (Instability), loss of effectiveness which is irreversible.

Stabilising additives / Auxiliaries

Preservatives
not present

Antioxidants
not present

Solvents
not present

Others
approx. 0.2 % Cereareth-6, Stearyl Alcohol
approx. 1.0 % Sorbitan Oleate

General information

Raw material basis

Synthetic: (mineral oil / natural gas)

Composition hints for finished product label

INCI Components

INCI Name (US/EU/CN)	Content
Sodium Acrylates Copolymer	23 - 27 %
Caprylic/Capric Triglyceride	24 - 25 %

Water Content	Content
	48 - 51 %

Miscellaneous information

Recommended concentration
It is recommended to use Luvigel® EM in concentrations of 1.0 - 2.5 % in cosmetic formulations.

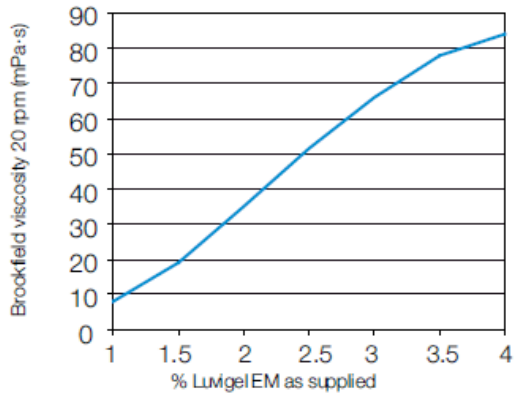


Fig. 1: Viscosity as a function of Luvigel® EM concentration (formulation: aqueous gel)
The thickening effect (Fig. 1) of Luvigel® EM lies in the 10000 - 20000 mPa.s range. A concentration of 2.5 % gives a viscosity of about 50000 mPa.s. A further addition rises the viscosity to the 80000 - 100000 mPa.s range.

pH-value
Over a pH range of 6 - 9, the viscosity lies between 30000 and 40000 mPa.s (Fig. 2)

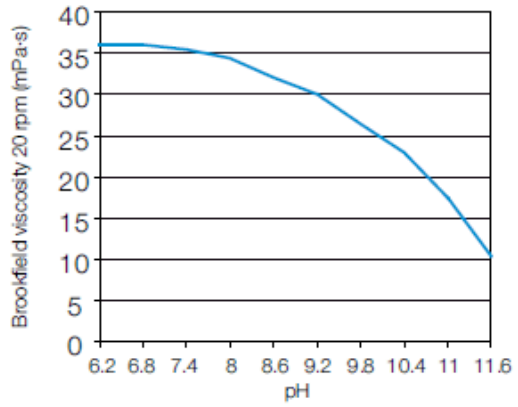


Fig. 2: Viscosity of a 1 % aqueous gel as a function of pH

Stability to salts
In common with other thickeners, Luvigel® EM is sensitive to electrolytes.

Compatibility with solvents
Quantities of 20 % (w/w) ethanol, 1,2-propylene glycol and glycerine were added to a 3 % aqueous gel (Control gel Fig. 3), and its viscosity was determined.

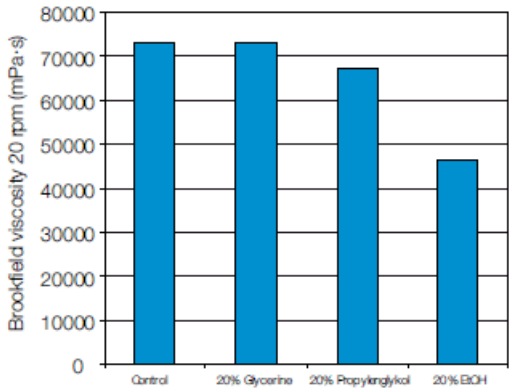


Fig. 3: Effect of polar solvents on the viscosity of a 3 % aqueous gel

Glycerin has no effect on the viscosity, while ethanol reduces it.

Example of use
Thickener for the production of cosmetic products.

Intended for use as cosmetic ingredient

Disclaimer