

TEGO® Carbomer 134, TEGO® Carbomer 140 & TEGO® Carbomer 141

Emulsion stabilizers, viscosity adjusters and viscosity builders

Intended use

Rheological additive
Stabilizers

Benefits at a glance

- Especially suitable for cosmetic or pharmaceutical emulsions and gels
- TEGO® Carbomer products correspond to the quality requirements according to Pharmacopoe Européenne

INCI (PCPC name)

Carbomer

TEGO Carbomer products correspond to the quality requirements according to Pharmacopoe Européenne.

Chemical and physical properties (not part of the specification)	TEGO® Carbomer 134	TEGO® Carbomer 140	TEGO® Carbomer 141
Appearance	powder	powder	powder

Properties

- TEGO® Carbomer products are excellent emulsion stabilizers, viscosity adjusters and viscosity builders.
- n-Hexane is used as solvent in the polymerization step.
- TEGO® Carbomer products are soluble in both water and alcohol.
- TEGO® Carbomer products can be used over a wide pH range.

Application

- TEGO® Carbomer products are suitable for the preparation and stabilization of creams, lotions and suspensions.
- TEGO® Carbomer 141 is suitable for the preparation of low viscous formulations, especially for O/W lotions. Additionally the electrolyte compatibility TEGO® Carbomer 141 is relatively high.

- TEGO® Carbomer 140 is especially suitable for the preparation of clear water or alcohol based gels.
- TEGO® Carbomer 134 and TEGO® Carbomer 140 are recommended for the manufacturing of high viscous emulsions.
- TEGO® Carbomer 134 is especially suitable for O/W creams.

Preparation

Add TEGO® Carbomer slowly into the Vortex of the agitating liquid. Avoid agglomeration. Use dissolver or propeller stirrer or rotor–stator–homogenizer.

Intensive shear may lead to a viscosity reduction of the final product and should be avoided.

Neutralise with triethanolamine, tetrahydroxypropylethyldiamine, sodium hydroxide or inorganic bases.

TEGO® Carbomer products can also be dispersed directly into mineral oil or ester oils just before manufacturing.

Recommended usage concentration

0.05 – 1.00% TEGO® Carbomer

Packaging

270 kg pallet (18 x 15 kg box)

Storage

TEGO® Carbomer products are hygroscopic. The material should be stored dry and in the dark. Open boxes should be used immediately.

Hazardous goods classification

Information concerning

- classification and labelling according to regulations for transport and for dangerous substances
- protective measures for storage and handling
- measures in accidents and fires
- toxicity and ecological effects

is given in our material safety data sheets.

Guideline formulations

O/W Lotion JM 2/94	
Phase A	
TEGO® Care 215 (Cetareth-15, Glyceryl Stearate)	2.5%
TEGO® Alkanol 18 (Stearyl Alcohol)	2.0%
TEGOSOFT® OS (Ethylhexyl Stearate)	5.0%
Mineral Oil (30 mPas)	4.2%
ABIL® 350 (Dimethicone)	0.5%
Phase B	
Glycerin	3.0%
Water	81.5%
Phase C	
TEGO® Carbomer 141	0.2%
Mineral Oil (30 mPas)	0.8%
Phase D	
Sodium Hydroxide (10% in water)	0.3%
Preservative, Perfume	q.s.
Preparation:	
1. Charge with phase B and heat to approx. 80 °C.*	
2. Heat phase A to approx. 80 °C and add to phase B with stirring.	
3. Homogenize.	
4. Cool with gentle stirring, add phase C at approx. 60 °C and homogenize again.	
5. Add phase D at approx. 40 °C.	
*Important information: If it is charged with phase A, phase B must be added to phase A without stirring .	

O/W Cream with Avocado Oil F 63/96	
Phase A	
TEGO® Care 450 (Polyglyceryl-3 Methylglucose Distearate)	3.0%
TEGIN® M Pellets (Glyceryl Stearate)	0.7%
TEGO® Alkanol 18 (Stearyl Alcohol)	0.3%
Avocado Oil	12.0%
TEGOSOFT® CT (Caprylic/Capric Triglyceride)	8.2%
Phase B	
Glycerin	3.0%
Water	71.3%
Phase C	
TEGO® Carbomer 134	0.2%
TEGOSOFT® DO (Decyl Oleate)	0.8%
Phase D	
Sodium Hydroxide (10% in water)	0.5%
Preservative, Perfume	q.s.
Preparation:	
<ol style="list-style-type: none"> Charge with phase B and heat to approx. 80 °C.* Heat phase A to approx. 80 °C and add to phase B with stirring. Homogenize. Cool with gentle stirring, add phase C at approx. 60 °C and homogenize again. Add phase D at approx. 40 °C. 	
*Important information: If it is charged with phase A, phase B must be added to phase A without stirring .	

Facial Cleanser UM 216/15	
Phase A	
Sodium Laureth Sulfate	4.3%
Parfum	0.2%
TEGOSOFT® GC (PEG-7 Glyceryl Cocoate)	0.5%
Glycerin	30.0%
TEGO® Carbomer 140 (4% in water)	27.0%
Water	29.0%
TEGO® Betain 810 (Capryl/Capramidopropyl Betaine)	3.2%
LACTIL® (Sodium Lactate, Sodium PCA, Glycine, Fructose, Urea, Niacinamide, Inositol, Sodium Benzoate, Lactic Acid)	1.0%
Xanthan Gum	0.1%
Sodium Hydroxide (10% in water)	4.7%
Preservative	q.s.
Preparation:	
Mix the ingredients in the given order.	

I 10/06

This information and all further technical advice is based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments.

The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used. (Status: April, 2008)

Evonik Nutrition & Care GmbH

Goldschmidtstraße 100 45127 Essen, Germany

P.O.BOX 45116 Essen PHONE + 49 201 173-2854 FAX +49 173-1828

personal-care@evonik.com www.evonik.com/personal-care