

TEGO[®] Alkanol CS 20 P

- Emulsifier for the formulation of cosmetic O/W emulsions
- Easy to formulate
- Sprayable lotions may be formulated
- Stable emulsions from pH 4.0 up to 8.5

Goldschmidt Personal Care

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INCI name (CTFA name)

Ceteareth-20

**Chemical and physical properties
(not part of specifications)**

Form	pellets
HLB value	approx. 15

Properties

- TEGO® Alkanol CS 20 P is a non-ionic emulsifier.
- TEGO® Alkanol CS 20 P is easy to formulate, because it is available in pellets.
- TEGO® Alkanol CS 20 P is suitable for the formulation of cosmetic O/W creams and lotions, especially sprayable lotions.
- TEGO® Alkanol CS 20 P forms alone or in combination with other emulsifiers stable and very fine dispersed emulsions.
- The amount used, referred to the emulsion, is 0.5 - 3.0 %.
- TEGO® Alkanol CS 20 P should be used in combination with consistency- providing substances for the formation of viscosity-enhancing gel structures in the external water phase.
Blends of TEGIN® M (glycerol mono/di-stearate) and cetyl/stearyl alcohol such as TEGO® Alkanol 16, 18 or 1618 have proved most effective.
These form liquid-crystalline structures in the water phase, the viscosity of the external phase is increased and the emulsion is stabilised.
- TEGO® Alkanol CS 20 P products are distinguished by their stability in acid or weakly alkaline formulations (pH 4.0 up to 8.5).

Preparation

We recommend for the preparation of creams to heat oil phase and water phase separately to approx. 65 °C; for lotions oil phase and water phase are heated separately to 80 °C.

Furthermore we recommend to add the hot water phase to the hot oil phase while stirring. The coarsely dispersed pre-emulsion is then homogenised.

During cooling, a constant horizontal and vertical movement of the emulsion has to be ensured. The viscosity of the liquid emulsion increases to a creamy consistency, as the hydrated consistency promoters solidify.

Perfume, temperature-sensitive substances or electrolyte containing ingredients are added at 35 - 45 °C.

The particle size of the dispersed oil droplets of long-term stable creams is approximately 1 - 4 µm, for lotions < 1 µm. More coarsely dispersed emulsions tend to separate.

Application

TEGO® Alkanol CS 20 P is especially suitable for:

- skin care creams and lotions
- sprayable lotions
- sun protection creams and sun protection lotions
- deodorant and antiperspirant sprays and roll-ons
- hair conditioner
- lotion wipes

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Recommended usage concentration

0.5 - 3.0 % TEGO® Alkanol CS 20 P

Packaging

600 kg pallet (24 x 25 kg bag)

Hazardous goods classification

Information concerning

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

is given in our material safety data sheets.

A 04/01

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