

# OPTIGEL-CL XR

## Gelling Agent for Water Phases in Cosmetic Applications

### Product Data

#### INCI Name

Magnesium Aluminum Silicate

#### Product Description

OPTIGEL-CL XR is an activated smectite and ultra-white product. OPTIGEL-CL XR is used as a thixotropic agent in water-based systems with excellent anti-settling and stabilizing properties. OPTIGEL-CL XR has been sterilized by gamma irradiation.

#### Typical Properties

The values indicated in this data sheet are typical and do not constitute specification limits.

Form:	Free flowing powder
Color:	White
Specific Weight:	approx. 2.5 g/cm <sup>3</sup>
Primary Particle Size at Complete Dispersion:	1 - 5 µm
Water Content:	max. 12.0 %
Loose Bulk Density:	400 - 600 g/l
Dry Sieve Residue 45µm:	max. 5.0 %
pH value (2 % suspension in water):	9 - 11
Brightness (Elrepho R 457):	about 80 %
Total Bacteria:	< 100 cfu/g
Date irradiation min. dosis	4,0 kGy

#### Recommended Use

Application areas:	Personal Care:	Cream and Lotion Sunscreen Product Shower Gel and Shampoo Face Mask
	Color Cosmetics:	Liquid Make-up Foundation Blush Eye Product

#### Incorporation and Processing Instructions

To get the optimum efficiency, a complete dispersion of the material is required. Therefore OPTIGEL-CL XR should be incorporated applying high shear forces e.g. by using a dissolver or a mill. To facilitate the dispersion, warm water can be used. OPTIGEL-CL XR is then added slowly to the water (emulsion) under slow agitation. OPTIGEL-CL XR can also be incorporated as powder added to the grind base.

OPTIGEL-CL XR can also be used as pre-manufactured pre-gel (containing 7 – 12 % OPTIGEL-CL XR). To avoid post thickening effects, this pre-gel should be allowed to age overnight. Stirring for approx. 15 minutes under high shear is therefore recommended.

#### Recommended Levels

## OPTIGEL-CL XR

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OPTIGEL-CL XR can be used to thicken and stabilize emulsions. Depending on requirements, between 1 % and 10 % of OPTIGEL-CL XR (based upon total formulation weight) is used.

These levels are suggested as guideline; optimum levels can be determined by laboratory tests.

### Special Note

OPTIGEL-CL XR is compatible with most emulsions, pigments or extenders. Higher concentration of electrolytes should be avoided since otherwise the gel structure can be damaged. By using OPTIGEL-CL XR, storage stable systems can be produced. Due to the thixotropic behaviour, the application is significantly improved. OPTIGEL-CL XR is purely inorganic and stable against diluted acids and bases. Gels produced with OPTIGEL-CL XR withstand oxidation or microbial degradation. OPTIGEL-CL XR is compatible with anionic and nonionic surfactants. The non-irradiated base material is available under the name OPTIGEL-CL.

### Storage and Transportation

OPTIGEL-CL XR should be stored dry in unopened, original packaging at temperature between 0°C and 30°C.

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