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HAJGEL 305 Personal Care

PRODUCT BULLETIN

HAJGEL 305 CTFA (INCI) Designation : Polyacrylamide & C13-14 Isoparaffin & Laureth-7

PRODUCT DESCRIPTION

HAJGEL 305 is an ingredient developed specifically for cosmetic and personal care products. It is a thickening and stabilizing agent for emulsions in the form of a neutral, ready to use fluid emulsion. It emulsifies all oily phase providing a soft and unctuous gel-cream texture. **HAJGEL 305** thickens extreme media (highly acidic, highly alkaline or oxidizing) and it stabilizes mineral additives.

PRODUCT CHARACTERISTICS

HAJGEL 305 is a ready to use liquid form. The polymer swells immediately in water, at room temperature, without any neutralization.

Appearance Translucent emulsion

Odor	: Slightly acrylic
Polymer charge	: Anionic
Dry extract	: 45 -55%
pH	:(2% solution)5.0 – 7.0
Viscosity	:(as supplied)1500 - 5500 cps*
Viscosity	: 18 000 -32 000 cps*(2% solution -25°C)
Residual acrylamide	:< or = 10 ppm
Shelf life	: 12 months

* Brookfield RVT – 20 rpm

PROPERTIES

Rheological profile

HAJGEL 305 is a thickening agent for aqueous based formulations. Products are pseudoplastic and non thixotropic. Viscosity decreases with shear stress (shear-thinning flow) and comes back instantly to its initial value (not time dependant).

Effect of temperature

Solutions of **HAJGEL 305** do not show significant changes in viscosity and stability at high temperature.

Emulsifying and stabilizing agent **HAJGEL 305** allows the formulation of highly stable suspensions and O/W emulsions under a wide range of pH (from 2 to 11).

Personal Care

COSMETIC APPLICATIONS

- Clear and colourless cosmetic products
- Ease of incorporation in formulations due to complete water solubility
- Provides soft and unctuous gel-cream texture
- Helps disperse mineral charges
- Skin and hair care

CONCENTRATION USE

HAJGEL 305 should be used at concentrations from 0.5% to 5% depending on the required effect. It should be added in the aqueous phase under agitation.

TOXICOLOGICAL DATA

Read attentively the MSDS of the product.

STORAGE

HAJGEL 305 should be stored at a temperature between 10°C and 40°C. If by accident the product freezes, thaw out by placing the drum in water while mixing thoroughly.

Store in original packaging or in any other glass, stainless steel, plastic or epoxy-lined container. Do not store in mild steel, copper or aluminium containers.

The information presented in this technical bulletin is given in good faith and is true and accurate to the best of our knowledge. No warranty or guarantee is expressed or implied regarding the accuracy of such data. It is the user's responsibility to determine the suitability for his own use of the information presented. No warranty or freedom is given regarding industrial property rights of HAJ EXPORTS or third parties.

HAJGEL 305

Sunscreen Emulsion

This example shows the compatibility of HAJGEL 305 with sunscreen agents.

HAJGEL 305 is also an efficient suspension stabilizer for solid particles such as titanium dioxide.

Ingredients	%w/w
A.	
Benzophenone 3	1
Glycereth -7 Triacetate	3
B.	
Oleyl Lactate	2
Octyldodecyl Erucate	2
Octyl methoxycinnamate	3
Shea Butter	2
Titanium Dioxide	4
C.	
Water	QSP 100
Preservatives	QS
Perfume	QS
HAJGEL 305	1

Manufacturing Process:

Dissolve Benzophenone in Glycereth-7 Triacetate. Add phase B in the order listed and heat to 40°C. Mix till uniform.

Add phase C and HAJGEL 305 while stirring. Cool to room temp.

Adjust pH at 5.0-5.6

HAGEL 305

HIGH PROTECTION SUN CREAM SPF 30 – BROAD SPECTRUM

A • Glyceryl stearate and PEG-100 stearate	3.20 %
• Coco-glucoside and Coconut alcohol	1.30 %
• Diisopropyl adipate	10.00 %
• Glycerin	7.00 %
• Ethyl hexyl methoxycinnamate	7.50 %
• Octocrylene	10.00 %
• Butyl methoxy dibenzoylmethane	2.00 %
B • HAJGEL 305 (<i>Polyacrylamide/C13.14 Isoparaffin/Laureth-7</i>)	1.20 %
• Cyclomethicone	5.00 %
C • Dimethicone copolyol phosphate	0.50 %
• Tetrasodium EDTA	0.20 %
• Xanthan gum	0.15 %
• Magnesium aluminium silicate	1.00 %
• Water	QSP 100%

D • Phenoxyethanol/Methylparaben/Ethylparaben /Propylparaben /Butylparaben	1.00 %
• DL alpha tocopherol	0.05 %
• Fragrance	0.30 %
• Tromethamine	qs pH

Procedure

Melt ingredients in A at 75°C. Disperse the silicate then the xanthan gum into the water. Heat the water phase to 75°C and add Dimethicone copolyol phosphate. Introduce A in C then start homogenizer. Introduce ingredients in B and continue homogenization step for few minutes. Allow to cool under moderate stir and at 40°C introduce ingredients in D. Adjust final pH if necessary.