

non-animal origin

rheological additive

for cosmetics and toiletries

## GENERAL INFORMATION

BENTONE GEL OLV V is a specially prepared dispersion of a non-animal origin organically modified hectorite in cosmetic grade olive oil. This grade is designed to impart rheological control and suspension in anhydrous and emulsion-based cosmetics.

BENTONE GEL OLV V can be used in "cold process" systems. It provides thermostable viscosity control of the emulsion's oil phase, improves application properties, enhances skin-feel by masking greasy or tacky components and imparts a pleasant residual silkiness to the skin.

BENTONE GEL OLV V is an alternative to traditional polymer or cellulose-based thickeners for stabilising emulsions.

## INGREDIENTS

### INCI name:

Olea Europaea (Olive) Fruit Oil, Stearalkonium Hectorite, Propylene Carbonate

## APPLICATIONS

- Lipcare
- Eye Make-Up
- Emulsions
- Pressed Powder
- Hair Preparations
- Sunscreens

## KEY PROPERTIES

### BENTONE GEL OLV V rheological additive

#### Non-animal origin

#### Rheological control

- Predictable, reproducible and stable viscosity control
- Shear-thinning viscosity
- Excellent suspension of pigments and actives
- Controlled alignment of special-effect pigments
- Thermostable viscosity raises apparent melting point and ensures cost-efficient use of UV filters
- Emulsion stabilization [w/o and o/w]

#### Convenience

- Optimally pre-activated and dispersed organoclay
- Incorporates with medium-shear mixing
- Can be added at any convenient stage of manufacture
- Gives a high degree of formulating flexibility
- Provides highly reproducible results for multi-site production requirements

#### Acceptability

- Non-abrasive
- Provides smooth feel to skin
- Toxicologically safe ingredients

## CHEMICAL AND PHYSICAL DATA

Color / Form	Golden gel
Viscosity, Brookfield Helipath, TF spindle, mmcps @ 2.5 rpm	1.8 – 3.5
% Ash Content	8.75 – 9.75
Infrared	To Match Standard
Microbial Content	Less than 100 cfu/g

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## INCORPORATION

BENTONE GEL OLV V can be added at any convenient suitable stage during the manufacturing cycle. BENTONE GEL additive is a very high viscosity, shear-thinning product. To ensure good homogeneous mixing is achieved, care must be taken to overcome the large viscosity differential existing between the BENTONE GEL and the other lower viscosity components. Choice of mixing equipment and the configuration within the mixing vessels are critical factors in developing the optimum performance of the BENTONE GEL additives. The use of medium- to high-shear mixing equipment is recommended.

### Batch Processing

#### Single Phase Systems

Always add the BENTONE GEL, under shear, to a portion of the organic component or solvent with which it is most compatible. Mix until homogeneous before adding the other ingredients.

#### Multi-Phase Systems e.g. emulsions

Treat as the single phase but always ensure the BENTONE GEL additive is thoroughly mixed in before the emulsification stage.

#### Continuous Processing

The BENTONE GEL should be added to the oil phase at any convenient point that meets the above guidelines for batch processing. In multi-manifold systems, a flowable pre-mix of the BENTONE GEL with a compatible oil or solvent should be made in a side pot.

Where only lower-shear mixing equipment is available, stir the BENTONE GEL alone and then slowly add the most compatible component by portions, always ensuring the mixture remains homogeneous at each stage.

## LEVELS OF USE

The level of use of the BENTONE GEL will depend on the formulation. Suspension will be provided by 2.5-10.0% additions. In emulsions, thickening will occur in the oil phase only and emulsion

viscosities will be influenced by 3-5% additions. Novel emulsification effects can be achieved, giving light feel and lower viscosities. In some water-in-oil systems a reduction of surfactant may be achievable by the use of BENTONE GEL additive.

Higher levels of BENTONE GEL will have a greater viscosity influence and thermostable viscosity in single phase systems may be achieved by 10-25% additions.

## COMPATIBILITY

BENTONE GEL additives can contribute greatly to a formulation's stability by improving the compatibility of other ingredients. Care should be taken to determine the compatibility of the BENTONE GEL additive with the oils, actives or surfactant ingredients within a formulation. The wide range of grades available allows selection of the optimal carrier and organoclay for each system.

## TOXICITY

Care is taken to ensure that the ingredients used in BENTONE GEL additives are not known to be injurious to health in any way and have been toxicologically tested to ensure their safety. However, the BENTONE GEL additives have not been subjected to testing involving the use of animals within the last 10 years.

## STORAGE TEMPERATURES

Store away from excessive heat.

## SHELF LIFE

BENTONE GEL OLV V has a shelf life of 2 (two) years from date of manufacture.

## SAFETY

Before using this product, please consult our MSDS.

#### USA Head Office

Elementis Specialties, Inc.  
469 Old Trenton Road  
East Windsor, NJ 08512  
USA  
Tel.: +1 609 443 2500  
Fax: +1 609 443 2422

#### Europe

Elementis UK Ltd  
c/o Elementis GmbH  
Stolberger Strasse 370  
50933 Cologne  
Germany  
Tel.: +49 221 2923 2000  
Fax: +49 221 2923 2011

#### Malaysia

Elementis Specialties, Inc.  
Lot PT 55, 64 & 65  
Jalan Hulu Tinggi 26/6  
Seksyen 26  
40400 Shah Alam  
Selangor Darul Ehsan  
Malaysia  
Tel.: +60 3 5191 9979  
Fax: +60 3 5191 6811

#### China

Deuchem (Shanghai) Chemical Co., Ltd.  
99, Lianyang Road  
Songjiang Industrial Zone  
Shanghai  
China 201613  
Tel.: +86 21 5774 0348  
Fax: +86 21 5774 3563