

BENTONE HYDROCLAY™ 550

Non-animal Origin Rheological Additive For Aqueous Cosmetics And Toiletries

GENERAL INFORMATION

BENTONE HYDROCLAY™ 550 additive is a highly beneficiated, easily dispersible powdered smectite clay. It imparts thixotropic viscosity and good suspension control to the water phase of cosmetics.

INCI NAME

Magnesium Aluminum Silicate

CHEMICAL & PHYSICAL PROPERTIES

% Drying Loss When Packed	max. 8
% Thru 200 Mesh Sieve	95.0 – 100.0

These are typical properties not to be used for specification purposes

APPLICATIONS

- Oil in Water Emulsions
- Creams
- Lotions
- Anti-Perspirants
- Deodorants
- Colour Cosmetics
- Face Packs
- Facial Make-Up
- Sun Care Products
- Hair Care Products

KEY PROPERTIES

- Non-animal origin
- Is easily processed as a powder or pre-gel
- Increases the viscosity of the aqueous phase and stabilises viscosity on ageing, at varying temperatures and under different shear conditions
- Is stable over the pH range 4-10
- Imparts thermostable thixotropy/pseudoplasticity
- Provides dependable suspension control
- Reduces phase separation and syneresis

- Is non-abrasive and imparts smooth silky feel to cosmetics and personal care products

INCORPORATION

BENTONE HYDROCLAY™ 550 additive is easy to process.

- Add **BENTONE HYDROCLAY™ 550** to a vessel containing only water, pH 7.0 - 8.0. Mix at highest practicable speed for 10 minutes. Warm water can improve hydration speed.
- After sufficient hydration time, introduce glycols, defoamers, biocides, dispersants etc. (mix).
- Add pigments, fillers, active ingredients and disperse.
- Complete dilution.

Alternate process:

- Mix **BENTONE HYDROCLAY™ 550** in a humectant at a minimum ratio of 3 parts humectant to 1 part clay.
- Add the mixture to water with propeller mixing.
- Mix for 5—10 minutes until fully hydrated.
- Continue with batch processing.

LEVELS OF USE

Typical use levels of **BENTONE HYDROCLAY™ 550** are 0.3% to 1.0% based on total system weight.

HEALTH AND SAFETY

Before using this product please consult our Safety Data Sheet (SDS) for information on safe handling and storage. The SDS can be found on the company website.

STORAGE RECOMMENDATIONS

Store in a dry place. **BENTONE HYDROCLAY™ 550** additive will absorb atmospheric moisture in high humidity conditions.

SHELF LIFE

BENTONE HYDROCLAY™ 550 has a minimum shelf life of 4 (four) years from date of manufacture.

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BENTONE HYDROCLAY™ 550

QUALITY ASSURANCE

Since 1992 the company is a holder of the ISO 9001 / ISO 9002 certificates, which guarantees that all operations are conducted according to the stipulated standards.

SUSTAINABILITY

BENTONE HYDROCLAY™ 550 is a raw material approved by Ecocert Greenlife in accordance with the COSMOS Standard.



**COSMOS
APPROVED**

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BENTONE HYDROCLAY™ 900

Non-animal Origin Rheological Additive For Aqueous Cosmetics And Toiletries

GENERAL INFORMATION

BENTONE HYDROCLAY™ 900 additive is an organically-modified hectorite clay additive designed for the water phase of cosmetics. It is a highly efficient thickener providing significantly higher viscosity than other clay-based additives.

INCI NAME

Hectorite and Hydroxyethylcellulose

CHEMICAL & PHYSICAL PROPERTIES

% Drying Loss When Packed	max. 7.5
% Thru 325 Mesh Sieve	98.5 – 100.0
Gel Ability (cP)	8000 - 12000

These are typical properties not to be used for specification purposes

APPLICATIONS

- Oil in Water Emulsions
- Water in Oil Emulsions
- Creams
- Lotions
- Anti-Perspirants
- Deodorants
- Colour Cosmetics
- Face Packs
- Facial Make-Up
- Sun Care Products
- Hair Care Products

KEY PROPERTIES

- Vegan
- Is easily processed as a powder or pre-gel
- Increases the viscosity of the aqueous phase and stabilises viscosity on ageing, at varying temperatures and under different shear conditions
- Is compatible with synthetic resin dispersions such as polyvinyl acetate, polyvinyl propionate, polyacrylics and their copolymers as well as with

polar solvents, such as alcohols and glycols

- Is stable over the pH range 3-11
- Provides high viscosity increase at low shear rates
- Imparts suspension control
- Reduces phase separation and syneresis
- Is non-abrasive, non-irritant and imparts a smooth silky feel to cosmetics and personal care products

INCORPORATION

BENTONE HYDROCLAY™ 900 additive is easy to process. No chemical activator or increased temperature is required; however, warming the water to above 35°C will accelerate dispersion and hydration rates.

- Add **BENTONE HYDROCLAY™ 900** to a vessel containing only water, pH 7.0 - 8.0. If necessary, adjust pH level. High pH may lead to dispersion difficulties due to rapid hydration of **BENTONE HYDROCLAY™ 900**, whereas a low pH leads to reduced efficiency and excessively long hydration times.
- Mix at highest practicable speed for 10 minutes.
- After sufficient hydration time, introduce glycols, defoamers, biocides, dispersants etc. (mix).
- Add pigments, fillers, active ingredients and disperse.
- Complete dilution.

LEVELS OF USE

Typical use levels are 0.1% - 1.0% **BENTONE HYDROCLAY™ 900** additive by weight of total formulation depending upon the degree of suspension, the rheological properties or viscosity required.

HEALTH AND SAFETY

Before using this product please consult our Safety Data Sheet (SDS) for information on safe handling and storage. The SDS can be found on the company website.

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BENTONE HYDROCLAY™ 900

STORAGE RECOMMENDATIONS

Store in a dry place. **BENTONE HYDROCLAY™ 900** additive will absorb atmospheric moisture in high humidity conditions.

SHELF LIFE

BENTONE HYDROCLAY™ 900 has a minimum shelf life of 4 (four) years from date of manufacture.

QUALITY ASSURANCE

Since 1992 the company is a holder of the ISO 9001 / ISO 9002 certificates, which guarantees that all operations are conducted according to the stipulated standards.

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BENTONE HYDROCLAY™ 1100

Non-animal Origin Rheological Additive For Aqueous Cosmetics And Toiletries

GENERAL INFORMATION

BENTONE HYDROCLAY™ 1100 is a rheological additive, based on a purified hectorite clay, which imparts thixotropy and good anti-settling properties to the water phase of cosmetics. It is particularly effective as a means of improving suspension control without unduly increasing viscosity.

BENTONE HYDROCLAY™ 1100 is an acid- stable clay and has the ability to absorb oils in skin treatments.

INCI NAME

Magnesium Aluminum Silicate

CHEMICAL & PHYSICAL PROPERTIES

% Drying Loss When Packed	Max. 6.0
% Thru 200 Mesh Sieve	95.0 – 100.0
Viscosity (cP)	300 - 1000
% Calcium Carbonate	Max. 9.6
Green Tristimulus Colour	63 - 80

These are typical properties not to be used for specification purposes

APPLICATIONS

- Oil in Water Emulsions
- Water in Oil Emulsions
- Creams
- Lotions
- Anti-Perspirants
- Deodorants
- Colour Cosmetics
- Face Packs
- Facial Make-Up
- Sun Care Products
- Hair Care Products

KEY PROPERTIES

- Vegan

- Is easily processed as a powder or pre-gel
- Provides suspension control at low viscosity
- Increases the viscosity of the aqueous phase
- Is stable over the pH range 6-11
- Imparts thermostable thixotropy/pseudoplasticity
- Reduces phase separation and syneresis
- Is non-abrasive and imparts smooth silky feel to cosmetics and personal care products

INCORPORATION

BENTONE HYDROCLAY™ 1100 rheological additive should be incorporated using high-shear equipment (high-speed disc impellers, rotor-stator mixers etc.)

To avoid lumping, add **BENTONE HYDROCLAY™ 1100** slowly to warm water and, to achieve best results, disperse under high-shear mixing for 25-40 minutes.

Pre-gels, up to 10%, can be prepared in water but viscosity may continue to increase over 24-48 hours with **BENTONE HYDROCLAY™ 1100** levels above 2%. This effect can be significantly reduced by using water at a temperature above 35°C.

It is important that the **BENTONE HYDROCLAY™ 1100** is fully dispersed in the water before any other components, particularly surfactants, are added. **BENTONE HYDROCLAY™ 1100** can, in some cases, be processed as a powder added directly to the formulation. Intensive shear together with the solids of the formulation will provide maximum dispersion and gelation.

LEVELS OF USE

Typical use levels are 0.25%-5% **BENTONE HYDROCLAY™ 1100** additive by weight of total formulation depending upon the degree of suspension, the rheological properties or viscosity required.

HEALTH AND SAFETY

Before using this product please consult our Safety Data Sheet (SDS) for information on safe handling and storage. The SDS can be found on the company website.

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BENTONE HYDROCLAY™ 1100

STORAGE RECOMMENDATIONS

Store in a dry place. **BENTONE HYDROCLAY™ 1100** additive will absorb atmospheric moisture in high humidity conditions.

SHELF LIFE

BENTONE HYDROCLAY™ 1100 has a minimum shelf life of 4 (four) years from date of manufacture.

QUALITY ASSURANCE

Since 1992 the company is a holder of the ISO 9001 / ISO 9002 certificates, which guarantees that all operations are conducted according to the stipulated standards.

SUSTAINABILITY

BENTONE HYDROCLAY™ 1100 is a raw material approved by Ecocert Greenlife in accordance with the COSMOS Standard.



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BENTONE HYDROCLAY™ 2000

Non-animal Origin Rheological Additive For Aqueous Cosmetics And Toiletries

GENERAL INFORMATION

BENTONE HYDROCLAY™ 2000 additive is a highly beneficiated, easily dispersible powdered smectite clay. It imparts thixotropic viscosity and good suspension control to the water phase of cosmetics.

INCI NAME

Hectorite

CHEMICAL & PHYSICAL PROPERTIES

% Drying Loss When Packed	max. 7.5
% Thru 200 Mesh Sieve	94.0 – 100.0
Gel Ability (cP)	1600 - 2400

These are typical properties not to be used for specification purposes

APPLICATIONS

- Oil in Water Emulsions
- Water in Oil Emulsions
- Creams
- Lotions
- Anti-Perspirants
- Deodorants
- Colour Cosmetics
- Face Packs
- Facial Make-Up
- Sun Care Products
- Hair Care Products

KEY PROPERTIES

- Vegan
- Is easily processed as a powder or pre-gel
- Increases the viscosity of the aqueous phase and stabilises viscosity on ageing, at varying temperatures and under different shear conditions
- Is stable over the pH range 6-11
- Imparts thermostable thixotropy/pseudoplasticity

- Provides excellent suspension control
- Reduces phase separation and syneresis
- Is non-abrasive and imparts smooth silky feel to cosmetics and personal care products

INCORPORATION

BENTONE HYDROCLAY™ 2000 additive is easy to process. No chemical activator or increased temperature is required.

- Add **BENTONE HYDROCLAY™ 2000** to a vessel containing only water, pH 7.0 - 8.0. If necessary, adjust pH level. High pH may lead to dispersion difficulties due to rapid hydration of **BENTONE HYDROCLAY™ 2000**, whereas a low pH leads to reduced efficiency and excessively long hydration times.
- Mix at highest practicable speed for 10 minutes.
- After sufficient hydration time, introduce glycols, defoamers, biocides, dispersants etc. (mix).
- Add pigments, fillers, active ingredients and disperse.
- Complete dilution.

LEVELS OF USE

Typical use levels of **BENTONE HYDROCLAY™ 2000** are 0.3% to 1.0% based on total system weight.

HEALTH AND SAFETY

Before using this product please consult our Safety Data Sheet (SDS) for information on safe handling and storage. The SDS can be found on the company website.

STORAGE RECOMMENDATIONS

Store in a dry place. **BENTONE HYDROCLAY™ 2000** additive will absorb atmospheric moisture in high humidity conditions.

SHELF LIFE

BENTONE HYDROCLAY™ 2000 has a minimum shelf life of 4 (four) years from date of manufacture.

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BENTONE HYDROCLAY™ 2000

QUALITY ASSURANCE

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SUSTAINABILITY

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BENTONE HYDROCLAY™ 2001

Non-animal Origin Rheological Additive For Aqueous Cosmetics And Toiletries

GENERAL INFORMATION

BENTONE HYDROCLAY™ 2001 additive is a highly beneficiated, easily dispersible powdered smectite clay. It imparts thixotropic viscosity and good suspension control to the water phase of cosmetics.

INCI NAME

Hectorite

CHEMICAL & PHYSICAL PROPERTIES

% Drying Loss When Packed	max. 7.5
% Thru 200 Mesh Sieve	94.0 – 100.0
Gel Ability (cP)	1600 - 2400
Total Viable Count (SAB)	Less Than 100 cfu/g
Total Viable Count (TSA)	Less Than 100 cfu/g

These are typical properties not to be used for specification purposes

APPLICATIONS

- Oil in Water Emulsions
- Water in Oil Emulsions
- Creams
- Lotions
- Anti-Perspirants
- Deodorants
- Colour Cosmetics
- Face Packs
- Facial Make-Up
- Sun Care Products
- Hair Care Products

KEY PROPERTIES

- Has controlled low-microbial content of <100 cfu/g
- Vegan
- Is easily processed as a powder or pre-gel
- Increases the viscosity of the aqueous phase and stabilises viscosity on ageing, at varying temperatures and under different shear

conditions

- Is stable over the pH range 6-11
- Imparts thermostable thixotropy/pseudoplasticity
- Provides excellent suspension control
- Reduces phase separation and syneresis
- Is non-abrasive and imparts smooth silky feel to cosmetics and personal care products

INCORPORATION

BENTONE HYDROCLAY™ 2001 additive is easy to process. No chemical activator or increased temperature is required.

- Add **BENTONE HYDROCLAY™ 2001** to a vessel containing only water, pH 7.0 - 8.0. If necessary, adjust pH level. High pH may lead to dispersion difficulties due to rapid hydration of **BENTONE HYDROCLAY™ 2001**, whereas a low pH leads to reduced efficiency and excessively long hydration times.
- Mix at highest practicable speed for 10 minutes.
- After sufficient hydration time, introduce glycols, defoamers, biocides, dispersants etc. (mix).
- Add pigments, fillers, active ingredients and disperse.
- Complete dilution.

LEVELS OF USE

Typical use levels of **BENTONE HYDROCLAY™ 2001** are 0.3% to 1.0% based on total system weight.

HEALTH AND SAFETY

Before using this product please consult our Safety Data Sheet (SDS) for information on safe handling and storage. The SDS can be found on the company website.

STORAGE RECOMMENDATIONS

Store in a dry place. **BENTONE HYDROCLAY™ 2001** additive will absorb atmospheric moisture in high humidity conditions.

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BENTONE HYDROCLAY™ 2001

SHELF LIFE

BENTONE HYDROCLAY™ 2001 has a minimum shelf life of 2 (two) years from date of manufacture.

QUALITY ASSURANCE

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