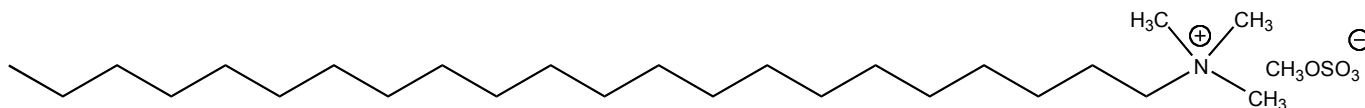


Maquat® BTMS-85%



Behentrimonium Methosulfate

Overview

MAQUAT BTMS-85% is a 78-82% active behenyl trimethyl ammonium methosulfate in an economical flake form. With the unique substantive and anti-static properties of the behenyl moiety, BTMS-85% is a superior product for use in wide range of Personal Care products from shampoos and conditioners to lotions and creams. MAQUAT BTMS-85% imparts exceptional wetting, cleaning, conditioning, softening, suspending and emulsification.

With over 35 years quat manufacturing experience and using the highest quality raw materials, MAQUAT BTMS-85% is characteristically low color, low odor and reliably consistent batch to batch.

MAQUAT BTMS-85%-BehenTrimonium MethoSulfate-is the mildest hair-detangling ingredient available. Derived from non-genetically modified rapeseed oil, this scientifically sophisticated **naturally derived ingredient** is renowned for its superior detangling ability, without causing build-up on the hair. Found in **Premium Bath & Body Products**, BTMS-85% imparts smooth detangling, improves dry comb and fly away, while leaving a soft powdery afterfeel. In other applications, use Maquat BTMS-85% as the primary emulsifier in **Lotions and Conditioners**.

INCI Name: Behentrimonium Methosulfate

Typical Properties

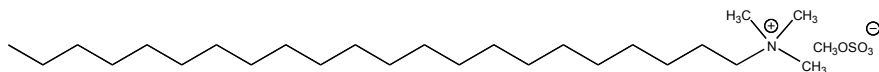
| | |
|---------------------------------------|-------------------------|
| Water solubility..... | Dispersible |
| Physical form | Flake |
| Color (Gardner)..... | 3 Maximum |
| Active quaternary (m.w. 480, %)... .. | 76-84 |
| Free amine + amine salt, % | 2.5 Maximum |
| pH, 2% aq. | 4.0-7.0 |
| Flash point..... | 20-25°C /70-80°F (PMCC) |
| RVOC, U.S. EPA, %..... | 15-20 (2-Propanol) |

Handling Information

Refer to the Material Safety Data Sheet (MSDS) available from Mason Chemical Company for information on the safe use, handling and disposal of this product.

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Maquat® BTMS-85%



MAQUAT BTMS-85% is based on the primary lipid found on hair surfaces, making it a uniquely natural compliment for use in hair conditioners and rinses, skin creams and lotions. BTMS-85% imparts smooth detangling, improves dry comb and fly away, while leaving a soft powdery afterfeel. In Hair Conditioner formulations, Maquat BTMS-85% imparts superior conditioning properties for differentiated products, as the formulations below illustrate:

Moisturizing Hair Conditioner (Preservative-Free*)

| Ingredients: | Wt.% |
|------------------------|-----------|
| Part A | |
| Water | to 100.00 |
| Maquat CETAC-30% | 0.3 |
| Enhansys M-110* | 1.0 |
| Part B | |
| Cetearyl alcohol | 1.5 |
| Maquat BTMS-85% | 1.2 |
| Part C | |
| Fragrance | q.s |
| Extracts/Oils | q.s. |

Procedure:

- Part A: Mix water, CETAC-30% and Enhansys M-110, heat to 65°C.
- Part B: Mix Cetearyl alcohol, and Maquat BTMS-85%, heat to 65°C.
- Mix Part B into Part A, and hold for 30 minutes, Cool to 45°C, add Part C.
- Add Fragrance, Extracts/Oils such as Aloe Vera, Chamomile and Jojoba.

Detangling Hair Conditioner (Preservative-Free*)

| Ingredients: | Wt.% |
|--------------------------|-----------|
| Part A | |
| Water | to 100.00 |
| Maquat CETAC-30% | 0.5 |
| Enhansys M-110* | 1.0 |
| Part B | |
| Cetearyl alcohol | 2.5 |
| Maquat BTMS-85% | 2.0 |
| Amodimethicone | 1.0 |
| C13-14 Isoparaffin | 1.0 |
| Part C | |
| Propylene glycol | 1.0 |
| Fragrance | q.s |
| Extracts/Oils | q.s. |

Procedure:

- Part A: Mix water, CETAC-30% and Enhansys M-110, heat to 65°C.
- Part B: Mix components, heat to 65°C.
- Mix Part B into Part A, and hold for 30 minutes, Cool to 45°C, add Part C.
- Add Fragrance, Extracts/Oils such as Aloe Vera, Chamomile and Jojoba.

Damaged hair, especially permed hair can be difficult to comb, especially when wet. Hair Conditioner products are generally oil-in-water emulsions in which the lipophilic conditioning quaternium ammonium salt is the active ingredient. The conditioning quat, along with the fatty alcohols impart wet-comb performance to the formulation. The superior substantive properties of Maquat BTMS-85% over other conditioning cationics significantly improves wet comb performance of these formulas, and others of their type, especially on damaged hair.

INCI Names:

| | |
|-------------------|--|
| Maquat CETAC-30%: | Cetrimonium Chloride |
| Maquat BTMS-85%: | Behentrimonium Methosulfate |
| Enhansys M-110: | Glycereth-2 Cocoate and Benzoic Acid and C4-18 Perfluoroalkylethyl Thiohydroxypropyltrimonium Chloride |

* Use Enhansys M-110 in-place of preservatives for a self-preserving formulation.