

# VARISOFT® 432 PPG / VARISOFT® 432 CG

Quaternary ammonium compound recommended for excellent wet comb and feel

## Intended use

Conditioning agents

### Benefits at a glance

- Excellent conditioning properties
- Improves especially wet comb and wet feel
- Makes hair soft and silky
- Easy to handle

## INCI (PCPC name)

Dicetyldimonium Chloride

Both products differ only in the solvent:

VARISOFT® 432 PPG: propylene glycol  
VARISOFT® 432 CG: isopropanol

### Chemical and physical properties (not part of specifications)

Content of quaternary ammonium compound	~ 68%
Solvent	Propylene Glycol or Isopropanol
Water content	~ 10%
Appearance at room temperature	liquid

## Properties

- Improves significantly wet comb and wet feel
- Makes hair soft and silky

- High actives content
- Substantive to hair
- Spreads easily on hair
- Easy to formulate.

The excellent sensory properties of VARISOFT® 432 PPG have been proven by sensory assessment with bleached European hair swatches.

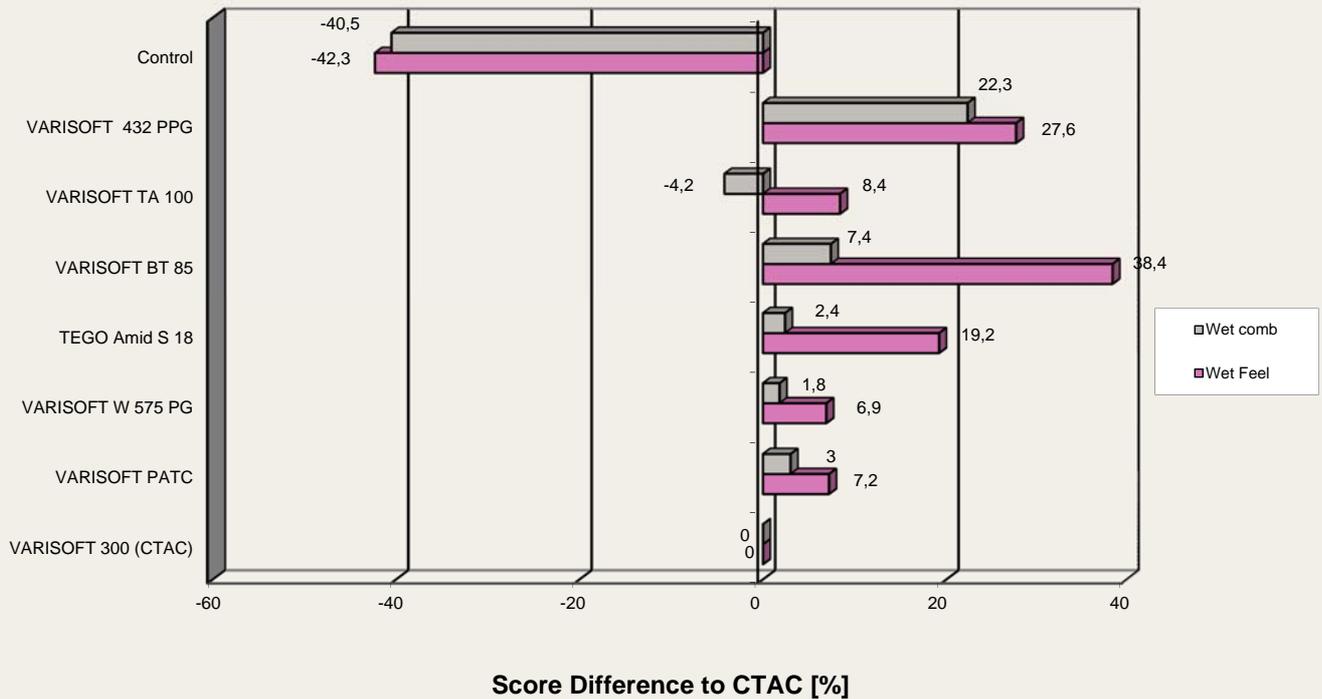
The test formulations were simple hair rinses based on 0.5% Cetearth-20, 2.0% Cetyl Alcohol and 1.0% active of different common conditioning agents, plus water. Control was just the formulation without additive.

The other tested conditioning agents were:

- VARISOFT® BT 85 (Behentrimonium Chloride)
- VARISOFT® W 575 PG (Quaternium-87)
- VARISOFT® TA 100 (Distearyldimonium Chloride)
- VARISOFT® PATC (Palmitamidopropyltrimonium Chloride)
- TEGO Amid S 18 (Stearamidopopyl Dimethylamine)
- VARISOFT® 300 (Cetrimonium Chloride)

The results of the wet properties like wet feel and wet combability, shown as difference to Cetrimonium Chloride ("CTAC", VARISOFT® 300) as standard, are shown in fig. 1.

VARISOFT® 432 PPG improves significantly both properties. The statistical Difference to CTAC has been proven (Duncan Multiple Range Test).



**Fig. 1:** Results of the sensory hair swatch test of different conditioner agents in comparison to Cetrimonium Chloride (CTAC) as standard.

### Application

- Conditioning hair rinses
- Conditioning shampoos
- Leave-in conditioners

### Suggested usage concentration

1 – 10% VARISOFT® 432 PPG or VARISOFT® 432 CG

### Packaging

708 kg pallet (4 x 177 kg drums)

### Storage

VARISOFT® 432 PPG and VARISOFT® 432 CG may become solid at lower temperatures. If this occurs the clarity and homogeneity of the product has to be recovered by mild heating (approx. 40 °C) and gentle mixing.

### Hazardous goods classification

#### Information concerning

- classification and labelling according to regulations for transport and for dangerous substances
  - protective measures for storage and handling
  - measures in accidents and fires
  - toxicity and ecological effects
- is given in our material safety data sheets.

## Guideline formulations

Variable Conditioner	
<b>Phase A</b>	
Water, deion.	89.5%
<b>Phase B</b>	
TEGO® Alkanol 16 (Cetyl Alkohol)	3.7%
VARISOFT® 432 CG	3.2%
TEGO® Alkanol 1618 (Cetearyl Alkohol)	0.6%
TEGO® Alkanol CS 20 P (Ceteareth-20)	0.8%
Cyclomethicone	0.6%
Perfume	q.s.
Citric acid	q.s.
Preservative	q.s.
<b>Preparation:</b> In separate vessels, heat phases A and B to 70 – 75 °C. Add phase A to phase B with agitation. Continue mixing while allowing the blend to cool to room temperature. Adjust the pH to 4.5 to 5.5 with citric acid. Add perfume and preservative as needed.	

Economy Conditioner	
<b>Phase A</b>	
Water, deion.	96.8%
<b>Phase B</b>	
TEGO® Alkanol 16 (Cetyl Alkohol)	2.0%
VARISOFT® BT 85 Pellets (Behentrimonium Chloride)	0.6%
VARISOFT® 432 PPG	0.6%
Perfume	q.s.
Citric acid	q.s.
Preservative	q.s.
<b>Preparation:</b> Heat phases A and B to 70 – 75 °C. Add phase A to phase B with agitation. Continue mixing while allowing the blend to cool to room temperature. Adjust the final pH to 4.5 – 5.5 with citric acid and add perfume and preservatives as required.	

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