



Dermolife di Margonari Maria Franca
Via Don Emilio Perugini 14 - 38121 Vigo Meano TRENTO (IT)
Tel : +39 340 585 1384
Mail : info@dermolife.it
Web : www.dermolife.it
P.I. 02202500225
C.F. MRGMFR66A69L378D

Technical Information

VARISOFT® BT 85 Pellets

Quaternary ammonium compound used as a strong hair conditioning agent

Intended use

Conditioning agent

Benefits at a glance

- strong conditioning properties
- improves wet and dry compatibility
- makes hair soft and silky
- Supplied as pellets: very easy to handle
- vegetable based

INCI (PCPC name)

Behentrimonium Chloride

Chemical and physical properties (not part of specifications)

Appearance at room temperature	pellets
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Properties

- Strong conditioning agent
- Superior cationic emulsifier
- Improves wet and dry combability
- Good antistatic properties
- Makes hair soft and silky
- High solids content
- Substantive to hair and skin
- Spreads easily on hair
- Free flowing flake form
- Easy to formulate
- Easily rinsed off hair
- Vegetable based

VARISOFT® BT 85 Pellets has superior antistatic properties and minimizes curl droop compared to Cetrimonium Chloride (VARISOFT® 300).

A comparison of three different concentration levels from a simple hair rinse formula was performed. The concentrations were based upon an equivalent cost basis of VARISOFT® BT 85 Pellets ("BTAC") and VARISOFT® 300 ("CTAC"), see Table 1.

Comparison	BTAC	CTAC
A	0.3%	0.5%
B	0.6%	2.0%
C	1.2%	2.0%

Table 1: Concentration levels based upon equivalent costs for BTAC and CTAC for the conditioning assays.

The formulations were tested according to their conditioning properties towards chemically damaged European hair. No significant differences between VARISOFT® BT 85 Pellets and Cetrimonium Chloride (VARISOFT® 300) were found for the properties comb and feel (wet and dry).

Concerning the antistatic properties, VARISOFT® BT 85 Pellets is superior to Cetrimonium Chloride (VARISOFT® 300) at three concentration levels (see fig. 1). Both a static decay test and an anti-fly-away test (charging by combing) were performed.

I metodi di analisi non indicati sono metodi interni del produttore ottenibili su specifica richiesta

Le informazioni sopra riportate non Vi sollevano dall'obbligo di identificare il prodotto prima dell'impiego. DERMOLIFE non si assume alcuna responsabilità per danni a persone o cose derivanti dall'impiego dei prodotti da noi commercializzati

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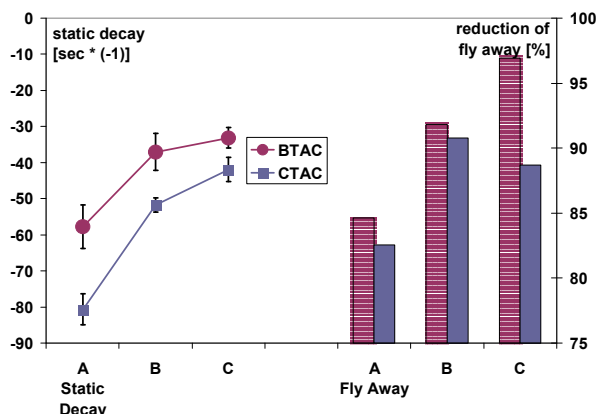


Figure 1: Comparison of antistatic properties of VARISOFT® BT 85 Pellets (BTAC) and VARISOFT® 300 (CTAC) at an equivalent costs basis (see Table 1).

At lower concentrations, VARISOFT® BT 85 Pellets provides a good hydrophobic effect without weighing down the hair. Therefore providing a longer lasting hairstyle, compared to CTAC, as evidenced by using the curl retention test.

Application

- Conditioning hair rinses
- Conditioning shampoos
- Leave-in conditioners
- Body and hand creams and lotions

Suggested usage concentration

1 – 10% VARISOFT® BT 85 Pellets

Packaging

150 kg pallet (6 x 25 kg drums)

Processing hint

Loss of volatile compounds, e.g. by repeated heating of a batch, may lead to a change in the melting behavior and might negatively influence the processing.

- toxicity and ecological effects

is given in our material safety data sheets.

Guideline formulations

Hot Oil Treatment	
Phase A	
Water, deion.	96.5%
Polyquaternium-10	1.0%
Hydroxyethylcellulose	0.5%
Phase B	
VARISOFT® BT 85 Pellets	1.0%
Lauramide DEA	1.0%
Phase C	
Citric acid (25% aq. solution)	to pH 4.5 – 5.5
Preservative, Parfum	q.s.
Preparation:	
Sprinkle pre-weighed polyquaternium-10 and hydroxyethylcellulose into deionized water while stirring. Continue agitation until phase A is clear. Pre-mix phase B until a uniform gel is formed. Heat phase A to 65 °C. Add unheated phase B to phase A with gentle agitation. Cool to room temperature (approximately 30 °C) with mixing. Adjust pH with Citric Acid.	

Hazardous goods classification

Information concerning

- classification and labeling according to regulations for transport and for dangerous substances
- protective measures for storage and handling
- measures in accidents and fires

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Easy Comb Conditioner AC-120	
Phase A	
Water, deion.	93.0%
Phase B	
TEGO® Alkanol 16 (Cetyl Alcohol)	1.5%
VARISOFT® BT 85 Pellets	1.5%
VARISOFT® 300 (Cetrimonium Chloride)	1.0%
Propylene Glycol	2.0%
Phase C	
ABIL® B 8832 (Bis-PEG/PPG-20/20 Dimethicone)	1.0%
Citric acid (25% aq. solution)	to pH 4.5-5.5.
Preservative, Perfume	q.s.
Preparation: Heat the water of phase A and phase B to 70 – 75°C. Add phase B to phase A with agitation. Cool to 50 – 60 °C and add ABIL® B 8832 and mix. Cool to 30 – 35 °C and adjust the pH with Citric Acid.	

Economy Conditioner	
Phase A	
Water, deion.	96.8%
Phase B	
TEGO® Alkanol 16 (Cetyl Alcohol)	2.0%
VARISOFT® BT 85 Pellets	0.6%
VARISOFT® 432 PPG (Dicetyldimonium Chloride)	0.6%
Phase C	
Citric acid	pH to 4.5 – 5.5
Preservative, Perfume	q.s.
Preparation: Heat phases A and B to 70 – 75 °C. Add phase B to phase A with agitation. Continue mixing while cooling to room temperature. Adjust the pH with Citric Acid.	

Easy Comb Conditioner	
Phase A	
Water, deion.	93.7%
Phase B	
TEGO® Alkanol 16 (Cetyl Alcohol)	1.5%
VARISOFT® BT 85 Pellets	1.5%
VARISOFT® 300 (Cetrimonium Chloride)	1.0%
Phase C	
Water, deion.	2.0%
Hydrolyzed Collagen	0.3%
Phase D	
Citric acid (25% aq. solution)	q.s.
Preservative, Perfume	q.s.
Preparation: Heat phases A and B to 70 – 75 °C. With mixing, add phase B to phase A. Cool, with mixing to 45 °C. Add pre-mixed phase C. Cool to room temperature with mixing. Adjust the final pH with Citric Acid.	

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Product specification

Material VARISOFT BT 85 PELLETS
Spec.Code K00 standard

Inspection Characteristics	Method	Limits	Units	Z
Active Matter	GM_0160_01	1.950-2.100	meq/g	X
pH-Value 5% solids	GM_0133_01	6.0 - 8.0	pH-Value	X
Amine Value	GM_0060_01	<=2.0	mg KOH/g	X
Acid Value	GM_0010_08	<=2.0	mg KOH/g	X
Colour to Gardner	GM_0140_02	<=3.0		X
Activ content	GM_0160_01	78.0-84.0	%	X

Report on inspection certificate: X = specific/actual value, C = unspecific value/conformity, T = not reported

Molweight (Active) 400

This document is computer printed and therefore valid without signature.

All warranty claims in respect of the conformity of our product are subject to our General Terms and Conditions of Sale and Delivery. The data listed above reflects the criteria for our internal quality tests. We do not hereby make any express or implied warranty, whether for specific properties or for fitness for any particular application or purpose. All values are valid for the product when despatched from the works.

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VARISOFT® BT 85 Pellets

Product data record (PDR)

1. General information

1.1 Supplier

1.2 Product Description

1.2.1 Raw material category

Conditioning Agent

1.2.2 Ingredients according to INCI

Behentrimonium Chloride

1.2.3 Composition

Components	Source	Ratio
Behentrimonium Chloride	vegetable / synthetic	78 - 84 %
Isopropyl Alcohol	synthetic	approx. 15 %

This composition information serves for information of our customers only.

It is neither relevant for the composition listing according to Regulation (EC) No 1223/2009, nor does it reflect the chemical composition according to the different chemical regulations in the world which is disclosed in the table "information on ingredients/hazardous components" in the relevant parts of the respective (Material) Safety Data Sheets.

1.2.4 Solvents, preservatives and other additives

	CAS No./ REACH Reg. No.	EINECS / EC No.	Content	Function
Isopropyl Alcohol	67-63-0 01-2119457558-25	200-661-7	approx. 15 %	solvents

Unless mentioned in our PDR under section 2.1 (By products) or 2.2 (CMR), no components which are listed in Annex II of the Regulation (EC) No 1223/2009 and its modifications and updates are added to and are not to be expected in the above mentioned product due to the raw materials used and the production process.

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2. Information on production process

General description of production process:

Conversion of behenyl dimethylamine with methyl chloride on industrial scale

The product is not irradiated.

VARISOFT® BT 85 Pellets are produced in the strictest absence of any animal derived material of any type.

Residual plant based source (dominant origin of main constituents): rapeseed oil

GMO-Status:

The item contains Ingredients derived from rapeseed (including oils and other refined ingredients), and it has NOT been tested with PCR technology but to the best of knowledge, these ingredients are refined and do NOT contain any proteins or DNA.

2.1 By products

		method
1,4-Dioxane	not applicable	
Dichloroacetic acid	not applicable	Chromatography
Monochloroacetic acid	not applicable	Chromatography
Free amines	Alkyl Dimethylamine < 2.0 % Alkyl Dimethylamine-HCL < 0.5 %	Chromatography
Pesticides	meets the valid regulatory requirements for limits on agricultural pesticides	
Nitrosamines	not detectable (detection limit 15 ppb)	Chemiluminescence
Total heavy metals	max. 20 ppm	AAS-ICP
As, Cd, Co, Cr, Hg, Ni, Pb, Sb	each < 1 ppm	AAS-ICP
Latex	not to be expected in the product due to the raw materials used and the production process	
VOC	Isopropyl Alcohol approx. 15 %	

2.2 CMR (Carcinogenic, Mutagenic or Reprotoxic)

The use in cosmetic products of substances classified as CMR substances, of category 1A or 1B or 2 under Part 3 of Annex VI to Regulation (EC) No 1272/2008 shall be prohibited.

Further Information:

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:342:0059:0209:en:PDF>

Some of the CMR substances mentioned below and listed in Annex VI to Regulation (EC) No 1272/2008 are used as starting materials or solvents for the production of our cosmetic raw materials and may require reporting under California Proposition 65 or the Safe Cosmetics Act, SB 484.

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The presence of these prohibited substances has to be seen as non-intended. It is stemming from impurities of the starting materials or the manufacturing process which is technically unavoidable in good manufacturing practice.

CMR substance	Starting material	max. concentration	method
Ethylene Oxide	no		
Propylene Oxide	no		
Octamethylcyclotetrasiloxane (D4)	no		
2-Ethylhexanoic Acid	no		
n-Hexane	no		
Methyl Chloride	yes	50 ppm	
Dimethyl Sulfate	no		

2.3 "Allergens" according to the Regulation (EC) No 1223/2009

The presence of substances, the mentioning of which is required under the column 'Other' in Annex III, shall be indicated in the list of ingredients in addition to the terms perfume or aroma.

The cosmetic raw materials and the cosmetic actives supplied by Evonik Personal Care are manufactured without the use of perfumes and fragrances. An analytical proof for the absence in traces of the substances to be mentioned in addition to the terms perfume or aroma is not performed in cosmetic raw materials, which are chemically produced.

None of these substances have been intentionally added to our cosmetic raw materials or are formed during the manufacturing process according to our knowledge of the chemistry.

2.4 Food Ingredients listed in Annex II of Regulation (EU) No 1169/2011

None of these substances have been intentionally added to our cosmetic raw materials or are formed during the manufacturing process according to our knowledge of the chemistry.

3. Microbiological status

Total Viable Count max. 100 cfu/g
Pathogens* absent/g

*Pathogens are: Enterobacteria, Pseudomonas, Enterococci, Candida albicans, Staphylococci

4. Shelf life / storage conditions

360 days after production (unopened original packaging, temperature below 34 °C / 85 °F)

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5. Regulatory Status

5.1 HS-Code 382499
EU-CN-Code 38249993

5.2 Regulatory status (chemical regulations)

Europe

Components	REACH status	CAS No.	EINECS / EC No.
Behentrimonium Chloride	Reg. No. 01-2119484817-22	68607-24-9	271-756-9

Other countries

Country		yes / no	Remark
Australia	AICS:	yes	
China	IECSC:	yes	
Canada	DSL: NDSL:	yes	
Taiwan	TCSI:	yes	
USA	TSCA:	yes	CAS No. 17301-53-0

In the following countries the relevant authorities currently do not require pre-market approval for cosmetic raw materials:

Brazil, Japan, South Korea, Philippines, USA

5.2.1 Regulatory status (cosmetic regulation)

Country		yes / no	Remark
China	CFDA:	yes	
Japan	JSQI:	yes	JSQI No. 500061, but specifications not controlled

6. Toxicology and Ecotoxicology

Refer to summary of ecotoxicological and toxicological data

7. Packaging

Guarulhos, Sao Paulo: 80 kg or 100 kg drum
Shanghai: 225 kg (9 x 25 kg drum), 400kg (4 x 100kg drum)
Steinau: 150 kg (6 x 25 kg drum)

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