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54 **Detergent composition with fabric softening properties.**

57 A fabric treatment compositions comprises at least 10% soap as a fabric softener, especially an oleate/coconut soap, optionally a non-soap detergent active and up to 30% of a nonionic substituted cellulose ether having an HLB of 3.1 to 3.8 and a gel point of less than 58°C. A suitable such material is an ethyl hydroxyethyl substituted cellulose ether. Other fabric softening materials may also be present. The cellulose ether derivative improves the softening performance of such compositions.

EP 0 276 997 A2

Description**DETERGENT COMPOSITION WITH FABRIC SOFTENING PROPERTIES****BACKGROUND**

5 This invention relates to a detergent composition for treating fabrics in particular to such compositions which are capable of softening natural fibre wash load articles without causing redeposition problems on any synthetic fibre fabrics in the load. In particular the invention is directed to alkaline compositions capable of achieving an optimum balance of softening and detergency across a mixed fibre wash load.

10 It is desirable to overcome the possible harshening of fabrics which may result from repeated washing by treating the fabrics with a fabric softening agent either during the fabric washing step or in a subsequent fabric rinsing operation. Amongst the materials proposed as fabric softening agents are quaternary ammonium compounds, imidazolinium derivatives, fatty amines, fatty amine oxides, soaps, clays and mixtures thereof. Harshening of fabrics is a particular problem when the fabric is formed of or contains natural fibres such as cotton and wool.

15 Soaps are particularly attractive softening agents in view of their dual role as detergent active materials capable of removing soil from fabrics.

A problem associated with the deposition of organic fabric softening agents such as soap on fabrics during the wash is that to achieve a desirable degree of softening effect on fabrics, an increase in the deposition of fatty and particulate soil occurs on synthetic fabrics, leading to unsightly discolouration.

20 Products designed for cleaning fabrics often contain in addition to a detergent active material to remove soil from the fabric, an anti-redeposition material to reduce the redeposition of the removed soil from the wash liquor back onto the fabrics. Sodium carboxy methyl cellulose (SCMC) is one material used for this purpose. It reduces redeposition of clay and soot (or carbon) particulate soils onto hydrophilic fabrics such as cotton but not on hydrophobic fabrics.

25 For hydrophobic fabrics, such as polyester and acrylic fabrics, problems of redeposition are particularly extreme because the redeposition problem is one of organic fatty soil together with particulate, inorganic, soil.

The problem of redeposition on hydrophobic fabrics can be alleviated by incorporation of certain nonionic cellulose ether polymers, as described in South African Patent Specification No 71/5149 (UNILEVER).

30 It is proposed in United States Patent Specification No 3 920 561 (DESMARIS assigned to THE PROCTER AND GAMBLE COMPANY) to treat fabrics with a composition comprising a fabric softener and a highly substituted methyl cellulose derivative, such as a methyl cellulose containing from 2.14 to 2.62 methyl groups per anhydroglucose ring, in order to impart superior soil release benefits, especially to polyester fabrics while simultaneously imparting fabric softness in the rinse. We have found that these specified cellulose ether derivatives and others do not increase the deposition of soap on natural fibre fabrics in the wash step.

35 **DISCLOSURE OF THE INVENTION**

However, we have surprisingly found a selected class of nonionic cellulose ether derivatives which, in addition to controlling redeposition on synthetic fibres, are capable of enhancing fabric softening by soap in the wash step on natural fibre fabrics.

40 Thus, according to the invention there is provided a fabric treatment composition comprising at least 10% by weight of a soap which is a salt of a C₈ - C₂₄ saturated or unsaturated fatty acid and from 0.1% to 3% by weight of a water-soluble nonionic substituted cellulose ether derivative having an HLB (as herein defined) of between 3.1 and 4.3, preferably between 3.3 and 3.8, and a gel point (as herein defined) of less than 58°C, preferably between 33°C and 56°C, provided that the derivative contains substantially no hydroxyalkyl groups
45 containing 3 or more carbon atoms, the composition yielding of pH of more than 8.0 when added to water at a concentration of 1% by weight at 25°C.

THE CELLULOSE ETHER DERIVATIVE

50 The useful substituted cellulose ether derivatives are defined in part by their HLB. HLB is a well known measure of the hydrophilic-lyophilic balance of a material and can be calculated from its molecular structure.

A suitable estimation method for emulsifiers is described by J T Davies, 2nd Int Congress of Surface Activity 1957, 1 pp 426-439. This method has been adopted to derive a relative HLB ranking for cellulose ethers by summation of Davies's HLB assignments for substituent groups at the three available hydroxyl sites on the anhydroglucose ring of the polymer. The HLB assignments for substituent groups include the following:

55 Residual hydroxyl 1.9
Methyl 0.825
Ethyl 0.350
Hydroxy ethyl 1.63
60

The cellulose ether derivatives useful herein are polymers which are water-soluble at room temperature. The gel point of polymers can be measured in a number of ways. In the present context the gel point is measured on a polymer solution prepared by dispersion at 60/70°C and cooling to 20° - 25°C at 10 g/l concentration in

deionised water. 50 ml of this solution placed in a beaker is heated, with stirring, at a heating rate of approximately 5°C/minute. The temperature at which the solution clouds is the gel point of the cellulose ether being tested and is measured using a Sybron/Brinkmann colorimeter at 80% transmission/450 nm.

Provided that the HLB and gel point of the polymer fall within the required ranges, the degree of substitution (DS) of the anhydroglucose ring may be any value up to the theoretical maximum value of 3, but is preferably from about 1.9-2.9, there being a maximum of 3 hydroxyl groups on each anhydroglucose unit in cellulose. The expression 'molar substitution' (MS) is sometimes also used in connection with these polymers and refers the number of hydroxyalkyl substituents per anhydroglucose ring and may be more than 3 when the substituents themselves carry further substituents.

The most highly preferred polymers have an average number of anhydroglucose units in the cellulose polymer, or weight average degree of polymerisation, from about 50 to about 1,200. For certain product forms, eg liquids, it may be desirable to include polymers of relatively low degree of polymerisation to obtain a satisfactory product viscosity.

A number of cellulose ether derivatives suitable for use in the present invention are commercially available, as follows:

DS/MS				
Trade Name	Gel Point °C	HLB (Davies)	alkyl/hydroxalkyl	
BERMOCOLL CST035 (ex Berol Kemi)	35	3.40) 1.4 ethyl) 0.5 hydroxyethyl	25
BERMOCOLL E481 (ex Berol Kemi)	56	3.77) 0.9 ethyl) 2.0 hydroxyethyl	30
TYLOSE MHB 1000 (ex Hoechst)	54	3.52) 2.0 methyl) 0.1 hydroxyethyl	35

A number of other cellulose ether derivatives are known from the prior art, but have been found to be unsuitable for use in the present invention. Thus, British Specification No GB 2 038 353B (COLGATE-PALMOLIVE) discloses TYLOSE MH 300 (ex Hoechst) which has a gel point of 58°C and METHOCEL XD 8861 (ex Dow Chemical Company, now coded METHOCEL HB12M) which contains about 0.1 hydroxybutyl substituents per anhydroglucose ring, while Japanese Patent Specification No 59-6293 (LION KK) discloses KLUCEL H (ex Hercules Chemical Corp) which has an HLB of about 4.4, METHOCEL K4M (ex Dow Chemical Company) which has a gel point of about 69°C, and NATROSOL 250H (ex Hercules Chemical Corp) which has an HLB of about 6.9. The amount of cellulose ether derivative to be employed in compositions according to the invention is from 0.1% to 3% by weight of the composition.

THE SOAP

The term "soap", includes not only the usual alkali metal and alkaline earth metal salts of fatty acids, but also the organic salts which can be formed by complexing fatty acids with organic nitrogen-containing materials such as amines and derivatives thereof. Usually, the soap comprises salts of higher fatty acids preferably containing from 10 to 20 carbon atoms in the molecule, or mixtures thereof. Examples of suitable soaps include sodium stearate, sodium palmitate, sodium salts of tallow, coconut oil and palm oil fatty acids and complexes between stearic and/or palmitic fatty acids and/or tallow and/or coconut oil and/or palm oil fatty acids with water-soluble alkanolamines such as ethanolamine, di- or triethanolamine, N-methylethanol-amine, N-ethylethanolamine, 2-methylethanolamine and 2, 2-dimethyl ethanolamine and N-containing ring compounds such as morpholine, 2'-pyrrolidone and their methyl derivatives.

Mixtures of soaps can also be employed, such as the sodium and potassium salts of the mixed fatty acids derived from coconut oil and tallow, that is sodium and potassium tallow and coconut soap.

Particularly preferred are mixtures of oleate and coconut soaps in a weight ratio of between about 3:1 and 1:1.

The level of soap in the composition is more than 10% by weight (measured as the weight of the corresponding sodium soap). Preferably not more than 50% by weight, of soap is used to leave room in the formulation for other ingredients.

THE OPTIONAL NON-SOAP DETERGENT ACTIVE

The compositions according to the invention optionally additionally contain one or more non-soap detergent active materials, selected from anionic nonionic, zwitterionic and amphoteric synthetic detergent active materials. Many suitable detergent compounds are commercially available and are fully described in the literature, for example in "Surface Active Agents and Detergents", Volumes I and II, by Schwartz, Perry and Berch.

Anionic non-soap detergent active materials are usually water-soluble alkali metal salts of organic sulphates and sulphonates having alkyl radicals containing from about 8 to about 22 carbon atoms, the term alkyl being used to include the alkyl portion of higher acyl radicals. Examples of suitable synthetic anionic detergent compounds are sodium and potassium alkyl sulphates, especially those obtained by sulphating higher (C₈-C₁₈) alcohols produced for example from tallow or coconut oil, sodium and potassium alkyl (C₉-C₂₀) benzene sulphonates, particularly sodium linear secondary alkyl (C₁₀-C₁₅) benzene sulphonates; sodium alkyl glyceryl ether sulphates, especially those ethers of the higher alcohols derived from tallow or coconut oil and synthetic alcohols derived from petroleum; sodium coconut oil fatty monoglyceride sulphates and sulphonates; sodium and potassium salts of sulphuric acid esters of higher (C₈-C₁₈) fatty alcohol-alkylene oxide, particularly ethylene oxide, reaction products; the reaction products of fatty acids such as coconut fatty acids esterified with isethionic acids and neutralised with sodium hydroxide; sodium and potassium salts of fatty acid amides of methyl taurine; alkane monosulphonates such as those derived by reacting alpha-olefins (C₈-C₂₀) with sodium bisulphite and those derived from reacting paraffins with SO₂ and Cl₂ and then hydrolysing with a base to produce a random sulphonate; and olefin sulphonates, which term is used to describe the material made by reacting olefins, particularly C₁₀-C₂₀ alpha-olefins, with SO₃ and then neutralising and hydrolysing the reaction product. The preferred anionic detergent compounds are sodium (C₁₁-C₁₅) alkyl benzene sulphonates and sodium (C₁₆-C₁₈) alkyl sulphates.

Suitable nonionic detergent compounds which may be used include in particular the reaction products of compounds having a hydrophobic group and a reactive hydrogen atom, for example aliphatic alcohols, acids, amides or alkyl phenols with alkylene oxides, especially ethylene oxide either alone or with propylene oxide. Specific nonionic detergent compounds are alkyl (C₈-C₂₂) phenols-ethylene oxide condensates, generally up to 25 EO, ie up to 25 units of ethylene oxide per molecule, the condensation products of aliphatic (C₈-C₁₈) primary or secondary linear or branched alcohols with ethylene oxide, generally up to 40 EO, and products made by condensation of ethylene oxide with the reaction products of propylene oxide and ethylenediamine. Other so-called nonionic detergent compounds include long tertiary amine oxides, long chain tertiary phosphine oxides and dialkyl sulphoxides.

Mixtures of anionic and nonionic compounds may be used in the detergent compositions, particularly to provide controlled low sudsing properties. This is beneficial for compositions intended for use in suds-intolerant automatic washing machines.

Amounts of amphoteric or zwitterionic detergent compounds can also be used in the compositions of the invention but this is not normally desired due to their relatively high cost. If any amphoteric or zwitterionic detergent compounds are used it is generally in small amounts.

The effective amount of the non-soap detergent active compound or compounds used in the composition of the present invention is generally in the range of up to 50%, preferably up to 40% by weight, most preferably not more than 30% by weight of the composition and will usually be present in a minor amount relative to the amount of the soap.

OTHER OPTIONAL INGREDIENTS

The compositions of the invention may include a non-soap detergency builder to improve the efficiency of the detergent active, in particular to remove calcium hardness ions from the water and to provide alkalinity. The builder material may be selected from precipitating builder materials (such as alkali metal carbonates, bicarbonates, borates, orthophosphates and silicates), sequestering builder materials (such as alkali metal pyrophosphates, polyphosphates, amino polyacetates, phytates, polyphosphonates, aminopolymethylene phosphonates and polycarboxylates), ion-exchange builder materials (such as zeolites and amorphous aluminosilicates), or mixtures of any one or more of these materials. Preferred examples of builder materials include sodium tripolyphosphate, mixtures thereof with sodium orthophosphate, sodium carbonate, mixtures thereof with calcite as a seed crystal, sodium citrate, zeolite and the sodium salt of nitrilo- triacetic acid.

The level of such builder material in the compositions of the invention may be up to 80% by weight, preferably from 20% to 70% by weight and most preferably from 30% to 60% by weight.

Apart from the components already mentioned, a detergent composition of the invention can contain any of the conventional additives in the amounts in which such additives are normally employed in fabric washing detergent compositions. Examples of these additives include additional fabric softening agents. We have found particularly beneficial effects when the fabric softening agent is a mixture of soap and either a cationic fabric softening agent or a fatty amine. Other optional additives include the lather boosters such as alkanolamides, particularly the monoethanolamides derived from palm kernel fatty acids and coconut fatty acids, lather depressants, oxygen-releasing bleaching agents such as sodium perborate and sodium percarbonate, peracid bleach precursors, chlorine-releasing bleaching agents such as trichloroisocyanuric acid, inorganic salts such as sodium sulphate, and, usually present in very minor amounts, fluorescent agents,

perfumes including deodorant perfumes, enzymes such as cellulases, proteases and amylases, germicides and colourants.

THE COMPOSITION

The compositions may be in any convenient form such as bars, powders, pastes or liquids which may be aqueous or non-aqueous and structured or unstructured.

PREPARATION OF THE COMPOSITION

The detergent compositions may be prepared in any way appropriate to their physical form such as by dry-mixing the components, co-agglomerating them or dispersing them in a liquid carrier. However, a preferred physical form is a granule incorporating a detergency builder material and this is most conveniently manufactured by spray-drying at least part of the composition. The cellulose ether derivative may be incorporated either by dry mixing (optionally with other ingredients in a post-dosed adjunct) or by being included with other ingredients in a slurry and spray-drying.

USE OF THE COMPOSITION

The detergent compositions may be used in any conventional manner. A dosage level of between 1 g/l and about 12 g/l is suitable. Wash temperatures from room temperature (ie about 20°C) to the boil may be used.

The invention will now be illustrated in the following non-limiting examples.

Examples 1 to 8

In the following Examples, the cellulose ether derivatives which were used were:

Bermocoll CST 035 (ex Berol Kemi) which is an ethyl, hydroxyethyl derivative having a gel point of 35°C and an HLB of 3.40;

Tylose MH 300 (ex Hoechst) which is a methyl hydroxyethyl derivative having a gel point of 58°C and an HLB of 4.05;

Bermocoll E230 (ex Berol Kemi) which is an ethyl, hydroxyethyl derivative having a gel point of 63°C and an HLB of 4.09; and

Methocel J12 MS (ex Dow Chemical Company) which is a methyl, hydroxypropyl derivative having a gel point of 62°C and an HLB of 3.85.

Detergent compositions were prepared having the following formulations. The compositions were prepared by dry mixing the stated ingredients.

Composition:	A	B
<u>Ingredients</u> (% by weight)		
Nonionic detergent ¹	10	5
Soap ²	35	15
Anionic detergent active ³	-	1
Sodium tripolyphosphate	-	15
Sodium alkaline silicate	10	10
Sodium sulphate	15	45
Sodium perborate tetrahydrate	20	-
Cellulose ether derivative + water	<----balance----->	

Notes

1. Dobanol 45-7EO which is a fatty alcohol ethoxylated with an average of 7 ethylene oxide groups per molecule.

2. Tallow Soap.

3. Dobane 113 which is an alkyl benzene sulphonate in sodium salt form.

Both compositions had a pH of above 8.0 when added to water at 25°C at a concentration of 1% by weight.

The compositions were added to water at a dosage level of 5 g/l. The wash liquor so prepared was used to wash a fabric load containing terry towelling and polyester monitors in a laboratory scale apparatus using 24° FH water, a liquor to cloth ratio of about 20:1, a wash time of 15 minutes at 50°C, a 2 minute flood at 50°C

dilution followed by three 5 minute rinses. The fabric load was then line-dried. After drying, the terry towelling monitors were assessed for softness subjectively by expert judges who assess softness by comparison of pairs of monitors leading to preference scores which are then adjusted to give a score of zero for the control. A positive score indicates better softness than the control. The results are set out in the following table.

Table 1

<u>Example No</u>	<u>Composition</u>	<u>Cellulose ether derivative</u>	<u>Amount</u>	<u>Softening Score</u>
1	A	-	-	0
2	A	Tylose MH300	1%	+ 0.20
3	A	Bermocoll CST035	1%	+ 1.44
4	A	Methocel J12MS	1%	- 0.20
5	B	-	-	0
6	B	Tylose MH300	1%	+ 0.10
7	B	Bermocoll CST035	1%	+ 1.57
8	B	Bermocoll E230	1%	+ 0.29

These results demonstrate that, compared with the control, the cellulose ether derivative which has a gel point below 58°C and an HLB between 3.1 and 4.3 exhibits a significant softening benefit, while the other cellulose ether derivatives exhibit an insignificant benefit or, in one case, a disadvantage.

Examples 9 to 12

The procedure of Examples 1 to 8 was followed using the following compositions:

<u>Composition No.</u>	<u>C</u>
<u>Ingredients (% by weight)</u>	
Dobanol 45-7EO	5
Hardened tallow soap	15
Sodium Tripolyphosphate	15
Sodium alkaline silicate	10
Sodium sulphate	45
Water and Bermocoll CST035	balance

The following Table shows the results obtained with different levels of the cellulose ether derivative.

Table 2

<u>Example No</u>	<u>Composition</u>	<u>Amount of cellulose ether derivative</u>	<u>Softening Score</u>
9	C	-	0
10	C	0.5%	+ 1.30
11	C	1.0%	+ 1.42
12	C	3.0%	+ 0.32

These results demonstrate that there exists an optimum amount of cellulose ether derivative for best softening and that the inclusion of further such material beyond this optimum does not lead to a further improvement in softening.

Examples 10 to 13

Composition C was modified by replacing the Dobanol 45-7EO with Dobanol 45-9EO (which is a similar material but containing an average of 9 ethylene oxide groups per molecule) and by optionally including 2.0% of Dobane 113. The results were as follows:

Table 3

<u>Example No</u>	<u>Cellulose Ether Derivative</u>	<u>Anionic active</u>	<u>Softening Score</u>
10	-	-	0
11	1.0%	-	+ 1.60
12	1.0%	2.0%	+ 1.62
13	3.0%	-	+ 0.63

These results demonstrate that the benefits of the present invention are not significantly dependant upon the presence or absence of a non-soap anionic detergent active. Also, taking these results together with those in Table 2, it is evident that a significant benefit from the invention is obtained, whatever the nature of the nonionic detergent active.

Examples 14 to 17

When Examples 10 to 13 were repeated except that tallow soap was used in place of hardened tallow soap, the results were:

Table 4

5	<u>Example No</u>	<u>Cellulose Ether</u> <u>Derivative</u>	<u>Anionic active</u>	<u>Softening</u> <u>Score</u>
10	14	-	-	0
	15	1.0%	-	+ 1.62
	16	1.0%	2.0%	+ 1.83
15	17	3.0%	-	+ 0.87

20 Examples 18 to 21

An alkaline composition was prepared having the following formulation by spray drying a slurry of the stated ingredients, except the sodium perborate, to form a base powder and then adding the sodium perborate thereto.

25	Composition:	D
	<u>Ingredients</u> (% by weight)	
30	Ethoxylated alcohol - 12 EO	2.6
	Ethoxylated alcohol - 7 EO	3.0
	Tallow soap	10.69
35	Coconut soap	0.56
	Sodium carboxymethylcellulose	0.94
	Sodium tripolyphosphate	18.8
40	Sodium silicate	6.6
	Sodium sulphate	26.1
	Sodium perborate tetrahydrate	15.9
45	Sodium carbonate	5.0
	Water and minor ingredients	balance

50 To this composition was optionally added Bermocoll CST 035 and hardened tallow dimethyl amine and the compositions were tested using the procedure of Examples 1 to 8. The results were as follows:-

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Table 5

<u>Example No</u>	<u>Cellulose Ether Derivative</u>	<u>Tertiary amine</u>	<u>Softening Score</u>	
18	-	-	0	5
19	0.5%	-	+ 1.35	10
20	0.5%	2.0%	+ 1.38	
21	0.5%	1.0%	+ 1.60	15

These results demonstrate the additional benefit of a further fabric softening agent present in the composition.

Examples 22 to 25

An alkaline composition having the following formulation was prepared by spray cooling a slurry of the stated ingredients, except the sodium tripolyphosphate and the sodium perborate, to make a base powder and then adding the remaining ingredients.

Composition:	E	
<u>Ingredients</u> (% by weight)		30
Tallow soap	21.5	
Palm kernal soap	21.5	35
Coconut ethanalamide	2.5	
Sodium alkaline silicate	6.5	
Sodium carbonate	2.0	40
Sodium tripolyphosphate	8.0	
Water and minor ingredients	balance	

To this composition was added various amounts of Bermocoll CST 035 and the compositions were tested using the procedure of Examples 1 to 8 with the exception only that a dosage level of 6 g/l was used.

Table 6

<u>Example No</u>	<u>Cellulose Ether Derivative</u>	<u>Softening Score</u>	
22	-	0	55
23	0.3%	+ 0.29	
24	0.5%	+ 1.17	60
25	1.0%	+ 0.82	

These results indicate the benefit of the invention, even in the absence of non-soap detergent active

materials.

Examples 26 to 33

Liquid compositions were prepared having the following formulations:

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Composition:		F	G
<u>Ingredients</u> (% by weight)			
Potassium oleate		15.9	15.9
Potassium laurate		6.8	6.8
EDTA		0.1	0.1
Ethanol		35.0	25.0
Potassium chloride		1.2	1.2
Water		<----balance----->	

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These liquids were prepared by mixing a comelt of oleic and lauric acids at about 60°C with an aqueous/ethanol solution of EDTA, potassium hydroxide and potassium chloride. The liquids were cooled and a desired amount of cellulose ether derivative was added.

Various cellulose ether derivatives were added to these compositions which were then tested using the procedure described in Examples 1 to 8 except for the dosage level and water hardness. Details are as follows:

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Table 7

Example No:	26	27	28	29	30	31	32	33
Composition:	F	F	G	G	G	G	G	G
<u>Cellulose ether derivative (%)</u>								
Tylose MH 300			0.5			0.25		
Bermocoll CST035	1.0			0.5			0.25	
Methocel J12Ms		1.0			0.5			0.25
Dosage (g/l)	5	5	5	5	5	10	10	10
Water hardness	15	15	10	10	10	24	24	24

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It was found that, when compared under the same conditions, softening scores always show a preference for Bermocoll CST035 over the other cellulose ether derivatives tested.

Similarly, beneficial results can be obtained when composition G above is modified by the addition of 2% coconut ethanolamide or 2% Dobanol 45-7EO.

Examples 34 to 39

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Examples 9 to 12 were repeated using a variety of different soaps and soap blends and using 1% or 3% Bermocoll CST035.

The softening results were as follows:

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Table 8

<u>Example No</u>	<u>Soap</u>	<u>Softening Score at 3% polymer</u>	<u>Softening Score at 1% polymer</u>	5
34	Hardened tallow	-0.60	-0.20	10
35	Tallow	+0.11	+0.35	15
36	Oleate	-0.11	+0.10	20
37	Coconut	-0.23	-0.53	25
38	8.7/6.3 oleate/ coconut	+0.59	+0.15	30
39	10.0/5.0 oleate/ coconut	+0.24	+0.13	35

These results show the benefit of using an oleate/coconut soap blend, especially at the higher, 30% level of the cellulose ether derivative. 40

Examples 40 to 45

Examples 1 to 4, using composition A, was repeated using a variety of different soaps and soap blends and using 30% Bermocoll CST035. 45

The softening results were as follows:

<u>Example No.</u>	<u>Soap</u>	<u>Softening score at 3% polymer</u>	50
40	20.3/14.7 oleate/coconut	+0.34	
41	23.3/11.7 oleate/coconut	+0.25	55
42	Hardened tallow	+0.13	
43	Tallow	-0.02	
44	Coconut	-0.20	60
45	Oleate	-0.50	

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These results show the benefit of using an oleate/coconut soap blend.

5 Claims

1. A fabric treatment composition comprising
 - (i) at least 10% by weight of a soap which is a salt of a C₈ - C₂₄ saturated or unsaturated fatty acid; and
 - (ii) from 0.1 to 3% by weight of a nonionic substituted cellulose ether derivative having an HLB (as herein defined) of between 3.1 and 3.8, and a gel point (as herein defined) of less than 58° C, provided that the derivative contains substantially no hydroxyalkyl groups containing 3 or more carbon atoms; the composition yielding a pH of more than 8.0 when added to water at a concentration of 1% by weight at 25° C.
2. A composition according to Claim 1, which further comprises up to 50% by weight of a non-soap detergent active material.
3. A composition according to Claim 2, wherein the non-soap detergent active material is present in a minor amount relative to the amount of the soap.
4. A composition according to Claim 1, which further comprises an additional fabric softening agent selected from cationic fabric softening agents, fatty amines, fabric softening clays and their derivatives and mixtures thereof.
5. A composition according to Claim 1, wherein the cellulose ether derivative has an HLB (as herein defined) of between 3.3 and 3.8.
6. A composition according to Claim 1, wherein the cellulose ether derivative has a gel point (as herein defined) of between 33° C and 56° C.
7. A method of washing fabrics which includes the step of contacting the fabrics with a wash liquor having a pH of more than 8.0 and being formed by adding to water a composition comprising
 - (i) at least 10% by weight of a soap which is a salt of a C₈ - C₂₄ saturated or unsaturated fatty acid; and
 - (ii) from 0.1 to 3% by weight of a nonionic substituted cellulose ether derivative having an HLB (as herein defined) of between 3.1 and 3.8, and a gel point (as herein defined) of less than 58° C provided that the derivative contains substantially no hydroxyalkyl groups containing 3 or more carbon atoms.