

(19) **DANMARK**



Patent- og
Varemærkestyrelsen

(12) Oversættelse af
europæisk patentskrift

(10) **DK/EP 2985018 T3**

-
- (51) Int.Cl.: **A 61 K 8/37 (2006.01)** **A 61 K 8/35 (2006.01)** **A 61 Q 17/04 (2006.01)**
- (45) Oversættelsen bekendtgjort den: **2020-03-02**
- (80) Dato for Den Europæiske Patentmyndigheds bekendtgørelse om meddelelse af patentet: **2020-01-08**
- (86) Europæisk ansøgning nr.: **15186109.3**
- (86) Europæisk indleveringsdag: **2005-06-15**
- (87) Den europæiske ansøgnings publiceringsdag: **2016-02-17**
- (30) Prioritet: **2004-06-17 FR 0406605**
- (62) Stamansøgningsnr: **05778721.0**
- (84) Designerede stater: **AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR**
- (73) Patenthaver: **Sensient Cosmetic Technologies, 7 rue de l'Industrie, 95310 Saint Ouen L'Aumone, Frankrig**
- (72) Opfinder: **SEU-SALERNO, Martine, c/o LCW 7-9 rue de l'Industrie, 95310 SAINT-OUEN-L'AUMONE, Frankrig**
GRIZZO, Serge, c/o LCW 7-9 rue de l'Industrie, 95310 SAINT-OUEN-L'AUMONE, Frankrig
- (74) Fuldmægtig i Danmark: **Zacco Denmark A/S, Arne Jacobsens Allé 15, 2300 København S, Danmark**
- (54) Benævnelse: **Sammensætning til hindring af farvning**
- (56) Fremdragne publikationer:
EP-A1- 1 454 619
EP-A2- 0 930 063
EP-A2- 1 284 130
WO-A1-03/013468
WO-A1-03/020224
WO-A2-03/013456
WO-A2-03/075877
US-A- 6 136 299
US-B1- 6 555 095
US-B2- 6 491 901
LEIBOWITZ M.R. ET AL: "ULTRAVIOLET ABSORBERS AS STABILIZERS IN THE COSMETIC INDUSTRY", JOURNAL OF THE SOCIETY OF COSMETIC CHEMISTS, 1 janvier 1963 (1963-01-01), pages 217-225, XP055148603,
ANONYMOUS: "LCW les colorants Wackherr, COVABSORB", TECHNICAL BULLETIN, 9 octobre 1997 (1997-10-09), page 1, XP003029551,
"Solution in Ethanol (10 mg/l)", LCW CERTIFICAT D'ANALYSES COVABSORB SENSIENT COSMETIC TECHNOLOGIES, 3 mars 2003 (2003-03-03), page 1, XP003029552,
ANONYMOUS: "LCW Certificat d'analyses COVABSORB SENSIENT Cosmetic Technologies 03-03-2003", 20030303, 3 mars 2003 (2003-03-03), page 1, XP003029553,
"CRODA CREATES LIQUID LAUNDRY DETERGENT", HAPPI HOUSEHOLD AND PERSONAL PRODUCTS

Fortsættes ...

INDUSTRY, RODMAN PUBLISHING, RAMSEY, NJ, US, 1 janvier 2001 (2001-01-01), pages 1-4, XP003029554, ISSN: 0090-8878 & The Free Library:Household & Personal Products Industry: "CRODA CREATES LIQUID LAUNDRY DETERGENT", , 1 février 2001 (2001-02-01), pages 3-10, ISSN: 0090-8878 Extrait de l'Internet: URL:[http://www.thefreelibrary.com/CRODA+CR EATES+LIQUID+LAUNDRY+DETERGENT.-a070391703](http://www.thefreelibrary.com/CRODA+CR+EATES+LIQUID+LAUNDRY+DETERGENT.-a070391703) [extrait le 2010-02-02] & The Free Library:Household & Personal products Industry: "Reader Service", , 1 février 2001 (2001-02-01), pages 1-7, ISSN: 0090-8878 Extrait de l'Internet: URL:http://www.thefreelibrary.com/_/print/PrintArticle.aspx?id=71762716 [extrait le 2010-09-13] & "Neue Rohstoffe: Dow Corning introduces SensiGel: The new perfume product category", SOFW JOURNAL, vol. 126, no. 9, 13 novembre 2000 (2000-11-13), page 92, "CONDEA VISTA DEVOLOPS SPF SUN SPRAY", HAPPI HOUSEHOLD AND PERSONAL PRODUCTS INDUSTRY, RODMAN PUBLISHING, RAMSEY, NJ, US, 1 janvier 2001 (2001-01-01), pages 1-2, XP003029555, ISSN: 0090-8878

Anonymous: "Rouge Covasorb W 3784 A", Sensient Cosmetic Technologies (Technical Data Sheet) , 5 août 2010 (2010-08-05), XP002751206, European Patent Register Extrait de l'Internet: URL:<https://register.epo.org/application?documentId=EST8X10W2168FI4&number=EP05778721&lng=en&npl=false> [extrait le 2015-11-24]

The present invention relates to compositions which allow the colouring of formulations, especially of cosmetic formulations, to be stabilised.

5 In particular in the cosmetics field, many formulations comprise natural or synthetic colorants, which are generally intended to improve the appearance thereof and/or to impart a characteristic colouring thereto. A colouring may likewise appear because of the intrinsic colouring of certain ingredients, for example of perfumes.

10 In both cases, the colouring of the formulation is due to the presence of compounds which selectively absorb light.

Such coloured formulations are often packed in packaging which is transparent to light, for example of glass or of plastics material, so as to allow the products to be seen. Such packaging is generally also transparent to ultraviolet (UV) rays.

15 Because colorants are compounds that absorb light, they are sensitive to light and more especially to particularly high-energy ultraviolet rays. Exposure to ultraviolet rays can in fact induce free-radical reactions which modify the chemical structure of the colorants and accordingly their colouring properties. An alteration in the colour of the formulations is then observed, in the form of discoloration and/or a colour change.

20 In order to improve the stability of coloured formulations towards ultraviolet rays, it is possible to use ultraviolet filters, which provide protection by selectively absorbing the UV radiation.

There have been used as ultraviolet filters especially compounds of the benzophenone family.

30 However, those compounds have some disadvantages. On the one hand, they have a pronounced yellow colouring. This inherent colouring is added to the initial colouring, for example converting an initial blue colouring into a green colouring.

35 In addition, the effectiveness of the benzophenones in terms of stabilising the colouring has been found to be insufficient. Furthermore, molecules of the benzophenone type are generally poorly suited to use in aqueous cosmetic

compositions. The benzophenones are in fact generally not water-soluble and/or have a pronounced acidic nature, which requires an additional step of adjustment of the pH of the composition when such a compound is used.

5 Other compounds which absorb ultraviolet rays are known, such as those mentioned, for example, in Annex VII of E.E.C. Directive No. 76/168 (relating to ultraviolet filters accepted in cosmetics) or in the Directives of the F.D.A. (American Food and Drugs Administration), namely in the Federal Register, Vol. 43, No. 166 (25 August 1978).

10

However, those compounds are intended to protect the skin and hair against the harmful effects of UV rays, and not the cosmetic products themselves or their constituents, such as colorants. In this connection, reference may be made especially to the article "Filtres et écrans solaires" by M.C. Poelman in "Actifs et additifs en cosmétologie", 2nd Edition, 1999, Editions Tec & Doc, Paris.

15

Work carried out by the inventors has in fact made it possible to establish that the use of a single UV filter in a formulation does not always ensure effective protection of the colouring with regard to ultraviolet rays.

20

Accordingly, the presence of a UV filter in a cosmetic composition is not sufficient to stabilise the colouring with regard to UV rays, while it allows the skin or the hair to be protected when the composition is applied thereto.

25 The object of the present invention is to provide a composition which permits effective and long-lasting stabilisation of the colouring against the harmful effects of ultraviolet radiation and which does not have the disadvantages mentioned above.

Within this context, the object of the invention is in particular to provide stabilising compositions which are compatible with use in cosmetics.

30

To that end, according to a first aspect, the present invention proposes a stabilising composition consisting of an association of:

(A) from 70 to 80% of 2-ethylhexyl methoxycinnamate (denoted "compound A"

35

hereinbelow); and

(B) from 10 to 20% of butyl methoxydibenzoylmethane (denoted "compound B" hereinbelow); and

(C) from 10 to 15% of ethylhexyl salicylate (denoted "compound C" hereinbelow), and optionally a surfactant,

- 5 the percentages being by mass, based on the total mass of compounds A, B and C, said composition being in liquid form.

This stabilising composition is composed of a mixture of compounds (A), (B) and (C), or alternatively of a mixture of compounds (A), (B) and (C) with a surfactant.

10

Within the meaning of the present description, "ultraviolet filter" (or "UV filter") is understood as being a chemical compound which is capable of absorbing electromagnetic radiation in a range included within the ultraviolet radiation range, namely in the wavelength range between 4 and 400 nm. The association of

15 compounds A, B and C generally allows radiation between 200 and 400 nm to be absorbed.

15

The inventors have found that, surprisingly, the association of compounds A, B and C provides very effective stabilisation of the colorants of a formulation to ultraviolet

20 radiation.

20

This association is all the more valuable because it is colourless or very slightly coloured.

25

Advantageously, the association of compounds A, B and C is suitable for use in a cosmetic formulation, each of compounds A, B and C being a UV filter that is authorised in the cosmetics field, especially according to European, American and Japanese legislation.

30

Compound A is an ultraviolet filter of the cinnamate family and is 2-ethylhexyl methoxycinnamate.

Compound B is a UV filter of the dibenzoylmethane family and is butyl methoxydibenzoylmethane (also called "avobenzene").

35

Finally, compound C is an ultraviolet filter of the salicylate family and is ethylhexyl salicylate.

5 The stabilising composition is in liquid form, which facilitates dosing and allows it to be incorporated effectively and homogeneously into the formulation.

Still with regard to the contents of the different compounds A, B and C, work carried out by the inventors has made it possible to establish that particularly valuable colouring stabilisation results are observed when compound A is present within the
10 mixture of compounds A, B and C in a content of at least 70% by mass, based on the total mass of compounds A, B and C.

Accordingly, the stabilising compositions comprise from 70 to 80% by mass of compound A, based on the total mass of the mixture of compounds A, B and C.
15

Accordingly, the stabilising composition is a composition called "Composition 1" comprising:

- from 70 to 80% by mass of compound A, and
 - from 10 to 20% by mass of compound B, and
 - 20 - from 10 to 15% by mass of compound C,
- based on the total mass of the mixture of compounds A, B and C.

Accordingly, Composition 1 can comprise:

- 80% by mass of compound A;
- 25 - 10% of compound B; and
- 10% of compound C.

Advantageously, a Composition 2 contains:

- 70% by mass of compound A;
- 30 15% by mass of compound B; and
- 15% of compound C.

In its simplest form, the stabilising composition is composed of a mixture of compounds A, B and C.

35

Compounds A, B and C are soluble in most organic solvents, especially in alcohols and in lipid phases. Accordingly, the stabilising composition in this simple form is readily incorporated into cosmetic compositions comprising organic solvents or surfactants, such as shampoos, foam baths, toilet waters, eaux de parfum and oils.

5

The stabilising composition can, however, also be solubilised in formulations based on hydrophilic solvents, and especially in aqueous formulations in the presence of a suitable surfactant.

10 According to a valuable variant, as well as comprising compounds A, B and C, the stabilising composition therefore comprises a surfactant.

Particularly suitable surfactants are especially the non-ionic surfactants and in particular the mixture of non-ionic surfactants marketed by LCW under the name

15 solubilisant LRI.

The surfactant is employed in a quantity sufficient to ensure solubilisation of the stabilising composition in the formulation. Generally, a quantity of from 20 to 40% and preferably of approximately 30% by mass, based on the total of compounds A +

20 B + C, is appropriate.

According to this variant, the stabilising composition added to the formulation is solubilised by forming an emulsion or micro-emulsion, in which the oily phase comprises compounds A, B and C.

25

The described stabilising compositions allow the colouring of a formulation that does or does not comprise an organic phase to be stabilised. Accordingly, the stabilised formulation can be of the solution, emulsion or gel type, comprising natural or synthetic, water-soluble or fat-soluble colorants.

30

Accordingly, the use of the stabilising compositions as a stabilising additive for the colorants of a formulation constitutes another particular object of the present invention.

35 Within this context, the invention relates in particular to the use of the above-mentioned stabilising compositions for stabilising the colorants in cosmetic

formulations, such as perfumes, toilet waters, or alternatively body care or hygiene products such as shampoos or shower gels, for example.

5 The above-mentioned uses relate in particular to the stabilisation of colorants that are sensitive to ultraviolet radiation, especially organic colorants such as FD&C Red 40, natural colorants, such as madder, carmin soluble, caramel, chlorophyll or curcumin.

10 In order to protect the colouring from the effects of UV rays, the stabilising composition is added to the formulation in an appropriate quantity. That quantity will depend on the nature of the colorants, but also on the degree of exposure of the formulation to UV rays. It will therefore especially be dependent on the transparency of the container to UV rays and on the shelf life of the formulation.

15 In principle, a content of from 0.1 to 3%, preferably from 0.2% to 2% and very particularly from 0.5% to 1.5% by mass, based on the total mass of the formulation, is sufficient.

20 In the particular case of the aqueous composition, it is generally preferable that the mixture of compounds A, B and C is employed at a rate of from 1.5 to 4% by mass, based on the total mass of the stabilised formulation.

25 According to a final aspect, the present invention relates to formulations, especially cosmetic formulations, comprising the stabilising composition as defined hereinbefore.

30 The formulation can comprise an oily phase such as, for example, a polar oil, a non-polar oil or a perfume, or alternatively an aqueous-alcoholic phase comprising at least 10% by mass, or even at least 30% by mass, of an alcohol such as ethanol.

If the formulation comprises an aqueous or aqueous-alcoholic phase, the stabilising composition can be solubilised by means of a surfactant. The surfactant may be present already in the formulation, or in the added stabilising composition.

Colorimetric measurements

The stabilising effect of the composition is demonstrated by the following colorimetric measurements.

5

Solutions of the colorants FD&C Blue 1 and FD&C Red 40 in distilled water were prepared, which solutions were diluted so as to obtain an absorbance of between 0.3 and 1. The solution obtained is divided into two equal parts, one of which serves as controls while the other is exposed to sunlight in a SUN-TEST apparatus from Heraeus for 72 hours.

10

The absorbance spectrum of the sample and of the control of each colorant is then recorded by means of a UV-visible spectrophotometer (Varian, CARY 1 model) between 200 and 720 nm. On the basis of these spectra, the respective absorbance values $A_{\max}$ at the absorbance maxima are determined for the control and the sample, respectively.

15

The colouring power of the sample X is then given by the following relationship:

$$X = \frac{A_{\max(\text{control})}}{A_{\max(\text{sample})}} \times 100$$

20

One of the parameters allowing the colouring of a formulation to be characterised is its absorption at a characteristic wavelength. Preferably, the characteristic absorbance in the formulations comprising the stabilising composition after exposure to light for a period of one month falls by not more than 15%, preferably by not more than 10% and very particularly by not more than 8%.

25

Other advantages and features of the present invention will become more clearly apparent from the illustrative examples given below.

30

EXAMPLE 1: Preparation of a stabilising composition

A stabilising composition comprising 80% by mass of ethylhexyl methoxycinnamate, 10% by mass of butyl methoxybenzoylmethane and 10% by mass of ethylhexyl salicylate was prepared in accordance with the protocol below.

35

80 g of ethylhexyl methoxycinnamate, 10 g of butyl methoxydibenzoylmethane and 10 g of ethylhexyl salicylate were introduced into a mixer.

The mixture so obtained was heated at 60°C, with stirring, until a clear liquid was obtained.

5

EXAMPLE 2: Preparation of a stabilising composition

A stabilising composition was prepared in accordance with the protocol below.

10 70 g of ethylhexyl methoxycinnamate, 15 g of butyl methoxydibenzoylmethane and 15 g of ethylhexyl salicylate were introduced into a mixer.

EXAMPLE 3 comparative: Preparation of a stabilising composition

15

A comparative stabilising composition was prepared in accordance with the protocol below.

60 g of ethylhexyl methoxycinnamate, 20 g of butyl methoxydibenzoylmethane and 20 g of ethylhexyl salicylate were introduced into a mixer.

20 The mixture so obtained was heated at 60°C, with stirring, until a clear liquid was obtained.

EXAMPLE 4 comparative: Preparation of a stabilising composition

25

A comparative stabilising composition was prepared in accordance with the following protocol.

90 g of butyl methoxybenzoylmethane were introduced into a mixer, and then 5 g of ethyl methoxycinnamate and 5 g of ethylhexyl salicylate were introduced. There was
30 obtained, after mixing for a period of 2 minutes, a mixture of the three compounds in the form of a powder.

The compositions of Examples 1 to 4 are recorded in Table 1 below, where the indicated percentages are expressed relative to the total mass of compounds A

(ethylhexyl methoxycinnamate), B (butyl methoxybenzoylmethane), C (ethylhexyl salicylate).

Table 1: Stabilising composition of Examples 1 to 4

5

	Example 1	Example 2	Example 3	Example 4
Compound A Ethylhexyl methoxycinnamate	80%	70%	60%	5%
Compound B Butyl methoxybenzoylmethane	10%	15%	20%	90%
Compound C Ethylhexyl salicylate	10%	15%	20%	5%

EXAMPLE 5: Formulations comprising the stabilising composition

- 10 The stabilising compositions of the preceding Examples 1 to 4 were added to different cosmetic formulations.

a – Shampoos

- 15 Shampoo formulations a1 to a5 were prepared as indicated in Table 2 below, adding at the end 1% by mass, based on the finished formulation, of stabilising composition prepared in the preceding examples.

Table 2: Shampoo formulations

	a1	a2	a3	a4	a5 (control)
Texapon NSO [sodium lauryl ether sulfate]	30%	30%	30%	30%	30%
Cocamidopropyl betaine	10%	10%	10%	10%	10%
Red colorant FD&C Red 40	0.001%	0.001%	0.001%	0.001%	0.001%
Composition of Example 1	1%	-	-	-	-
Composition of Example 2	-	1%	-	-	-
Composition of Example 3	-	-	1%	-	-
Composition of Example 4	-	-	-	1%	-
Water	q.s. 100%	q.s. 100%	q.s. 100%	q.s. 100%	q.s. 100%
pH	4.7	5.2	4.6	4.7	5.7

5 **b – Oily compositions**

Oily compositions b1 to b5 were prepared as indicated in Table 3 below, adding at the end 1% by mass, based on the finished formulation, of stabilising composition prepared in the preceding examples.

Table 3: Oily compositions

	b1	b2	b3	b4	b5 (control)
Red colorant D&C Red 17	0.001%	0.001%	0.001%	0.001%	0.001%
Composition of Example 1	1%	-	-	-	-
Composition of Example 2	-	1%	-	-	-
Composition of Example 3	-	-	1%	-	-
Composition of Example 4	-	-	-	1%	-
Castor oil	q.s. 100%	q.s. 100%	q.s. 100%	q.s. 100%	q.s. 100%

5 c – Toilet waters

Toilet water compositions c1 to c5 were prepared as indicated in Table 4 below, adding to the perfume 1% by mass, based on the finished formulation, of stabilising composition prepared in the preceding examples, then the colorant and the ethanol.

Table 4: Toilet waters

	c1	c2	c3	c4	c5 (control)
Perfume	5%	5%	5%	5%	5%
Red colorant FD&C Red 40	0.001%	0.001%	0.001%	0.001%	0.001%
Composition of Example 1	1%	-	-	-	-
Composition of Example 2	-	1%	-	-	-
Composition of Example 3	-	-	1%	-	-
Composition of Example 4	-	-	-	1%	-
Ethanol 96°	q.s. 100%	q.s. 100%	q.s. 100%	q.s. 100%	q.s. 100%

5 **d – Aqueous compositions**

Different aqueous compositions d1 to d4 were prepared, the compositions of which are recorded in Table 5 below. The stabilising composition prepared according to Examples 1 to 4 is mixed beforehand with a mixture of non-ionic surfactants

10 (solubilisant LRI marketed by LCW) in a weight ratio of 1:2. The mixture is then heated at 70°C, with stirring, until a clear solution is obtained.

In the case of the stabilising composition according to Example 4, the solution becomes translucent and granular when it is cooled with stirring.

Table 5: Aqueous compositions

	d1	d2	d3	d4	d5 (control)
Blue colorant FD&C Blue 1	0.001%	0.001%	0.001%	0.001%	0.001%
Composition of Example 1	1%	-	-	-	-
Composition of Example 2	-	1%	-	-	-
Composition of Example 3	-	-	1%	-	-
Composition of Example 4	-	-	-	1%	-
Solubilisant LRI	2%	2%	2%	2%	-
Water	q.s. 100%	q.s. 100%	q.s. 100%	q.s. 100%	q.s. 100%
pH	4.7	5.2	4.6	4.7	5.7

- 5 The different compositions prepared were exposed to ultraviolet radiation for 72 hours in a SUN TEST apparatus. At the end of this treatment, the colouring power was measured as described above.

The results are set out in Tables 6 to 9 below. They were evaluated as follows:

	fall of 0%-20% in the colouring power	++++
	fall of 21-40% in the colouring power	+++
10	fall of 41-60% in the colouring power	++
	fall of 61-80% in the colouring power	+
	fall of 81-100% in the colouring power	0

Table 6: Shampoos

Compositions	a1	a2	a3	a4	a5 (control)
Stabilisation observed	++++	++	+	++	0

Table 7: Oily compositions

Compositions	b1	b2	b3	b4	b5 (control)
Stabilisation observed	+++	+++	+++	++	0

Table 8: Toilet waters

Compositions	c1	c2	c3	c4	c5 (control)
Stabilisation observed	++++	++++	+++	++++	0

5

Table 9: Aqueous compositions

Compositions	d1	d2	d3	d4	d5 (control)
Stabilisation observed	+++	++++	+++	++++	0

10 These results clearly show a very marked stabilising effect obtained in all cases when the stabilising composition is introduced into the different formulations.

COMPARATIVE EXAMPLE

15 By way of comparison, compositions similar to those of Example 5 were prepared, in which the stabilising compositions were replaced by compounds A, B and C taken in isolation. The compositions were tested under the same conditions as in Example 5 (exposure to ultraviolet radiation for 72 hours).

20 The results observed are set out in Tables 10 to 13 below, from which it is apparent that, in all the compositions tested, the presence of compound A, B or C on its own does not allow the colorants to be stabilised. On the contrary, a degradation in the behaviour of the composition under ultraviolet radiation is even observed.

Table 10: Shampoo compositions

	a1'	a2'	A3'	a5'
Texapon NSO (sodium lauryl ether sulfate)	30%	30%	30%	30%
Cocamidopropyl betaine	10%	10%	10%	10%
Red colorant: FD&C Red 40	0.001%	0.001%	0.001%	0.001%
Compound A Ethylhexyl methoxycinnamate	1%			
Compound B Butyl methoxybenzoylmethane		1%		
Compound C Ethylhexyl salicylate			1%	
Water	q.s. 100%	q.s. 100%	q.s. 100%	q.s. 100%
Stability towards UV	0	0	0	0

5

Table 11: Oily compositions

	b1'	b2'	b3'	b5'
Red colorant: D&C Red 17	0.001%	0.001%	0.001%	0.001%
Compound A Ethylhexyl methoxycinnamate	1%			
Compound B Butyl methoxybenzoylmethane		1%		
Compound C Ethylhexyl salicylate			1%	
Castor oil	q.s. 100%	q.s. 100%	q.s. 100%	q.s. 100%
Stability towards UV	0	0	0	0

Table 12: Toilet waters

	c1'	c2'	c3'	c5'
Perfume	5%	5%	5%	5%
Red colorant: FD&C Red 40	0.001%	0.001%	0.001%	0.001%
Compound A Ethylhexyl methoxycinnamate	1%			
Compound B Butyl methoxybenzoylmethane		1%		
Compound C Ethylhexyl salicylate			1%	
Ethanol 96°	q.s. 100%	q.s. 100%	q.s. 100%	q.s. 100%
Stability towards UV	0	0	0	0

5

Table 13: Aqueous compositions

	d1'	d2'	d3'	d5'
Blue colorant: FD&C Blue 1	0.001%	0.001%	0.001%	0.001%
Compound A Ethylhexyl methoxycinnamate + solubilisant LRI	3%			
Compound B Butyl methoxybenzoylmethane + solubilisant LRI		3%		
Compound C Ethylhexyl salicylate + solubilisant LRI			3%	
Distilled water	q.s. 100%	q.s. 100%	q.s. 100%	q.s. 100%
Stability towards UV	++	+	++	++

P a t e n t k r a v

1. Sammensætning, bestående af en kombination af:

(A) 70 til 80% ethylhexylmethoxycinnamat, i det følgende betegnet som forbindelse A; og

(B) 10 til 20% butylmethoxydibenzoylmethan, i det følgende betegnet som forbindelse B; og

(C) 10 til 15% ethylhexylsalicylat, i det følgende betegnet som forbindelse C, og eventuelt et overfladeaktivt stof,

hvor procentsatserne er masseprocent, baseret på den samlede masse af forbindelserne A, B og C,

hvor sammensætningen er i flydende form.

2. Sammensætning ifølge krav 1, omfattende:

- 80 masse-% af forbindelse A;

- 10 masse-% af forbindelse B; og

- 10 masse% af forbindelse C,

hvor procentsatserne er masseprocent, baseret på den samlede masse af forbindelserne A, B og C.

3. Sammensætning ifølge krav 1, omfattende:

- 70 masse-% af forbindelse A;

- 15 masse-% af forbindelse B; og

- 15 masse-% af forbindelse C,

hvor procentsatserne er masseprocent, baseret på den samlede masse af forbindelserne A, B og C.

4. Sammensætning ifølge krav 1, **kendetegnet ved, at** den omfatter et overfladeaktivt middel.

5. Anvendelse af en sammensætning ifølge et af de foregående krav, som et farvestabiliserende tilsætningsmiddel af en formulering.

6. Anvendelse ifølge krav 5, hvor formuleringen er en kosmetisk formulering.

5

7. Formulering, omfattende et farvestof og fra 0,1 til 4% af en stabiliserende sammensætning ifølge et af kravene 1 til 4.

8. Formulering ifølge krav 7, **kendetegnet ved, at** den er en kosmetisk formulering.

10