

## **DESCRIPTION**

### **[Title of Invention]**

Conditioning agent and conditioning composition

### **5 [Technical Field]**

[0001]

The present invention relates to a conditioning agent and a conditioning composition.

### **[Background Art]**

10 [0002]

Conventionally, various cationic surfactants have been used to impart flexibility to fibers and hair (Patent Documents 1 and 2). However, cationic surfactants have problems such as skin irritation and adverse effects on the environment due to their poor biodegradability. It has been proposed to use amidoamines for remedying such problems (Patent Documents 3 to 6), however, adsorptivity and smoothness are not sufficient.

[0003]

Incidentally, amide alcohols are known as an oil gelling agent (Patent Document 7); however, their conditioning effect has not been known.

### **[Citation List]**

#### **[Patent Document]**

[0004]

25 [Patent Document 1] JP A H06-178928

[Patent Document 2] JP A 2002-285469

[Patent Document 3] JP A H09-278728

[Patent Document 4] JP A 2003-171358

[Patent Document 5] JP A 2004-2261

30 [Patent Document 6] WO 2016/104697

**[Disclosure of Invention]**

**[Problems to Be Solved by the Invention]**

[0005]

5           In view of the above-mentioned problems in the prior art,  
an object of the present invention is to provide a conditioning  
agent which has high adsorptivity and imparts smoothness to fibers,  
hair and skin. In particular, it is an object of the present  
invention to provide a conditioning agent which imparts excellent  
10 smoothness to hair.

Another object of the present invention is to provide a  
conditioning composition such as softening agent and conditioner.

It is a further object of the present invention to provide  
a conditioning composition in a stable emulsified state.

15   **[Means for Solving the Problems]**

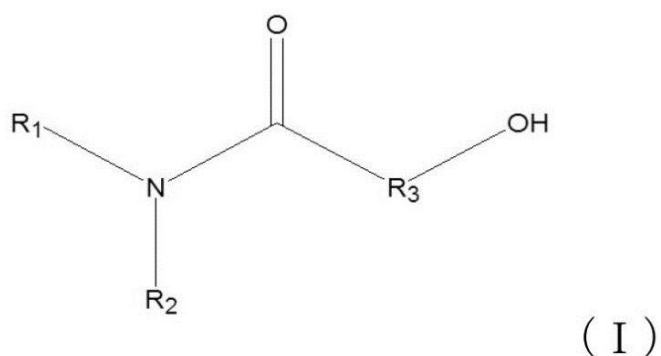
[0006]

During extensive research to solve the above problems, the  
present inventors have found that a specific amide alcohol has  
a conditioning effect; and as a result of further research, the  
20 inventors have completed the present invention.

[0007]

That is, the present invention relates to the following [1]  
to [13].

[1] A conditioning agent comprising an amide alcohol represented  
25 by formula (I):



wherein

R<sub>1</sub> is a C6-C22 hydrocarbon group which may be substituted,

R<sub>2</sub> is H, or a C6-C22 hydrocarbon group which may be substituted,

5 R<sub>3</sub> is a linear or branched C2-C21 hydrocarbon group which may be substituted.

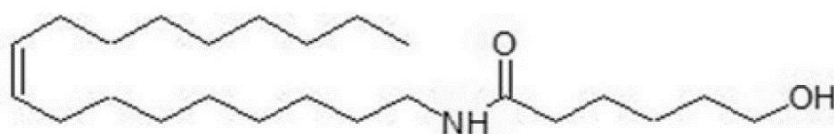
[2] The conditioning agent according to [1], comprising the amide alcohol represented by formula (I), wherein

R<sub>1</sub> is a C10-C22 hydrocarbon group,

10 R<sub>2</sub> is H,

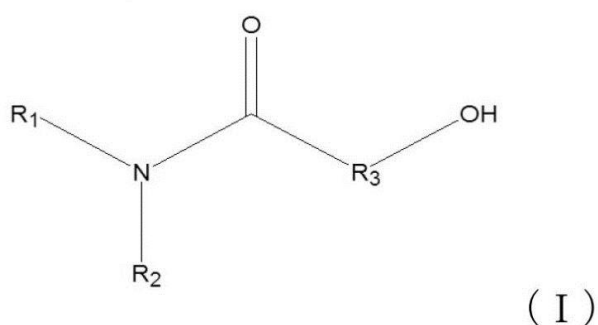
R<sub>3</sub> is a C3-C12 hydrocarbon group.

[3] The conditioning agent according to [1] or [2], wherein the amide alcohol is:



15

[4] A conditioning composition comprising an organic acid and an amide alcohol represented by formula (I):



wherein

R<sub>1</sub> is a C6-C22 hydrocarbon group which may be substituted,

R<sub>2</sub> is H, or a C6-C22 hydrocarbon group which may be substituted,

5 R<sub>3</sub> is a linear or branched C2-C21 hydrocarbon group which may be substituted.

[5] The composition according to [4], comprising:

0.1 to 10.0 mass% of the amide alcohol represented by formula (I),  
and

10 0.1 to 10.0 mass% of the organic acid.

[6] The composition according to [4] or [5], wherein the molar ratio of the amide alcohol represented by formula (I) to the organic acid is from 2:1 to 1:1.

[0008]

15 [7] The composition according to any one of [4] to [6], wherein the organic acid is one or more selected from the group consisting of a monocarboxylic acid, a dicarboxylic acid, a hydroxycarboxylic acid, a polycarboxylic acid, an acidic amino acid, and a fatty acid.

20 [8] The composition according to any one of [4] to [7], comprising one or more oil agents selected from the group consisting of ester oils, silicone oils, and hydrocarbon oils.

[9] The composition according to [8], which is an O/W emulsion composition.

[10] The composition according to [9], which is substantially free of surfactant.

[11] The composition according to any one of [4] to [10], comprising glutamic acid as the organic acid.

5 [12] The composition according to any one of [8] to [11], comprising one or more selected from the group consisting of squalane, liquid paraffin, and/or nonvolatile hydrocarbon oil as the oil agent.

[13] The composition according to any one of [4] to [12], which  
10 is hair and/or skin cosmetics.

#### **[Advantageous Effects of Invention]**

[0009]

The present invention provides, by using a specific amide alcohol, a conditioning agent which has high adsorptivity to  
15 fibers, hair and skin and imparts smoothness thereto.

Furthermore, by combining said conditioning agent and an organic acid, the present invention provides a conditioning composition which can be used as a softening agent for fibers and as a conditioner for skin and/or hair.

#### **[Brief Description of Drawings]**

[0010]

[Fig. 1] Figure 1 is a graph showing smoothness (slipperiness and roughness) on the hair.

[Fig. 2] Figure 2 is a diagram showing adsorption to the hair.

25 [Fig. 3] Figure 3 is a graph showing smoothness (slipperiness and roughness) on the skin.

[Fig. 4] Figure 4 is a diagram showing adsorption to the skin.

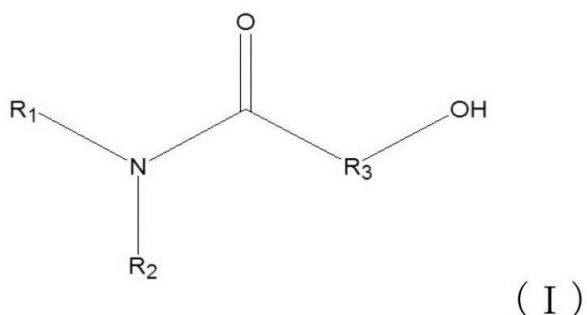
[Fig. 5] Figure 5 is a graph showing slipperiness on the hair.

#### **[Description of Embodiments]**

30 [0011]

Component (A): amide alcohol

The amide alcohol used in the present invention is represented by the following formula (I):



5    wherein

R<sub>1</sub> is a C6-C22 hydrocarbon group which may be substituted,

R<sub>2</sub> is H, or a C6-C22 hydrocarbon group which may be substituted,

R<sub>3</sub> is a linear or branched C2-C21 hydrocarbon group which may be substituted.

10    [0012]

As used herein, the term "hydrocarbon group" may be saturated or unsaturated, linear or branched or cyclic, or a combination of linear or branched with cyclic, unless otherwise specified, and includes a hydrocarbon group consisting of a linear or branched hydrocarbon moiety such as benzyl group, phenylethyl group, and a cyclic hydrocarbon moiety.

15

That is, the C6-C22 hydrocarbon group in R<sub>1</sub> and R<sub>2</sub> includes a linear, branched or cyclic C6-C22 hydrocarbon group, or a C6-C22 hydrocarbon group consisting of a linear or branched hydrocarbon moiety and a cyclic hydrocarbon moiety, and examples thereof include cyclic groups such as cyclohexyl, decahydronaphthyl, tetrahydrodicyclopentadiene, sterol, phenyl, naphthyl, anthracenyl; branched alkyl groups such as ethylhexyl, isostearyl, octyldodecyl; multibranched alkyl groups such as dimethyl,

20

trimethyl, tetramethyl; linear alkyl groups such as hexyl, octyl, lauryl, myristyl, cetyl, stearyl, arachyl, behenyl; and alkenyl groups such as oleyl and elaidyl.

[0013]

5           In one embodiment of the present invention,  $R_1$  is preferably an unsubstituted hydrocarbon group. Specifically, it is preferably an unsaturated linear or branched C10-C22 hydrocarbon group; or a cyclic C6-C22 hydrocarbon group; or a benzyl group or phenylethyl group.

10           Specific examples of  $R_1$  include cyclohexyl, ethylhexyl, octyl, lauryl, myristyl, stearyl, oleyl, benzyl or phenylethyl.

          In one embodiment of the present invention,  $R_1$  is particularly preferably lauryl, myristyl, stearyl and oleyl.

          In one embodiment of the present invention,  $R_2$  is preferably  
15   H.

[0014]

          The hydrocarbon group in  $R_3$  is a linear or branched C2-C21 hydrocarbon group having no cyclic structure, and examples thereof include alkyl groups such as propyl, butyl, pentyl, hexyl,  
20   heptyl, octyl, ethylhexyl, and alkenyl groups such as butylene, pentylene, hexylene, heptylene.

          In one embodiment of the present invention,  $R_3$  is a linear or branched C2-C12 hydrocarbon group, preferably an alkyl group, and specifically it is preferably propylene, butylene, pentylene  
25   or hexylene.

[0015]

          In the present invention, each hydrocarbon group may be substituted, and may be substituted with, for example, a hydroxy group, a carboxy group, and an aldehyde group.

30           Examples of substituted C6-C22 hydrocarbon groups in  $R_1$  and

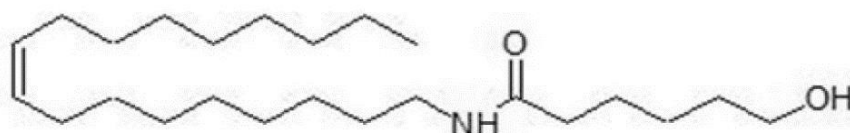
R<sub>2</sub> include hexanol, ethylcyclohexanol, and hexanoic acid.

Examples of substituted C<sub>2</sub>-C<sub>21</sub> hydrocarbon groups in R<sub>3</sub> include hydroxybutyl, and butyl ketone.

[0016]

5 In one embodiment of the present invention, an amide alcohol of formula (I) wherein R<sub>1</sub> is a C<sub>10</sub>-C<sub>22</sub> hydrocarbon group, R<sub>2</sub> is H, and R<sub>3</sub> is a C<sub>3</sub>-C<sub>12</sub> hydrocarbon group is preferred, and particular preference is given to the amide alcohol of formula (I) wherein R<sub>1</sub> is a C<sub>12</sub>-C<sub>18</sub> hydrocarbon group, R<sub>2</sub> is H, and R<sub>3</sub> is  
10 a C<sub>3</sub>-C<sub>5</sub> hydrocarbon group.

In a preferred embodiment of the present invention, the amide alcohol of formula (I) has a structure of:



[0017]

15 Amide alcohols can be prepared using known synthetic methods.

Examples include:

aminolysis reaction of acid chloride and amine (Schotten-Baumann reaction),

20 aminolysis reaction of anhydrous fatty acid and amine,  
aminolysis reaction of methyl ester and amine,  
aminolysis reaction of fatty acid and amine,  
aminolysis reaction of lactone and amine,  
and the like.

25 Specifically, for example, it can be synthesized by a method described in Japanese Patent Application No. 2016-114276(JP 6247340 B, registered on November 24, 2017 and published on

December 13, 2017).

[0018]

In the present specification, "conditioning" means imparting smoothness/slipping property and flexibility to fibers,  
5 hair, skin, etc.

In the present specification, "conditioning agent" means an ingredient used for providing a conditioning effect to a composition such as daily necessities and cosmetics.

The conditioning agent of the present invention may consist  
10 solely of the amide alcohol represented by formula (I) or may comprise further components.

Although not bound by any theory, it is considered that the amide alcohol represented by formula (I) has high adsorptivity by having a nitrogen atom, and has a characteristic of adsorbing  
15 to fibers, hair and skin surfaces.

[0019]

In the present specification, "conditioning composition" means a composition used for conditioning, and includes a product for textile, clothing and fabric such as softening agent and  
20 styling agent for clothing; hair cosmetics such as hair conditioner, hair treatment, and hair styling agent; skin cosmetic products including skin care cosmetics such as gel lotion, milky lotion, cream, beauty essence, sunscreen, and daytime moisturizer, as well as make-up cosmetics such as foundation,  
25 make-up base, eye shadow, mascara.

[0020]

The conditioning composition contains an amide alcohol represented by formula (I) and an organic acid.

In the present invention, by using the amide alcohol  
30 represented by formula (I), it is possible to impart high

adsorptivity to compositions.

[0021]

In one embodiment of the present invention, the blending amount of the amide alcohol represented by formula (I) in the conditioning composition is not particularly limited; from the  
5 viewpoint of giving a sufficient conditioning effect, it may be 0.1 to 10.0 mass%, preferably 0.1 to 8.0 mass%, and more preferably 0.1 to 5.0 mass%.

[0022]

10 In one embodiment of the present invention, pH can be adjusted by using an organic acid.

In one embodiment of the present invention, the conditioning composition can be emulsified by using an organic acid.

15 In one embodiment of the present invention, the blending amount of the organic acid in the conditioning composition is not particularly limited; from the viewpoint of pH adjustment, it may be 0.1 to 10.0 mass%, more preferably 0.1 to 5.0 mass %, and more preferably 0.1 to 3.0 mass%.

20 In a particular embodiment of the present invention, the conditioning composition is an O/W emulsion composition.

[0023]

The organic acid used in the conditioning composition is not particularly limited as long as it is a component generally  
25 used in a conditioning composition; examples of which include monocarboxylic acids such as acetic acid, propionic acid,; dicarboxylic acids such as malonic acid, succinic acid, glutaric acid, adipic acid, maleic acid, fumaric acid, phthalic acid,; hydroxycarboxylic acids such as glycolic acid, lactic acid,  
30 hydroxyacrylic acid, glyceric acid, malic acid, tartaric acid,

citric acid; polycarboxylic acids such as polyglutamic acid,; acidic amino acids such as glutamic acid, aspartic acid,; fatty acids such as lauric acid, myristic acid, palmitic acid, stearic acid, isostearic acid, oleic acid, erucic acid, behenic acid, dimer acid, hydroxystearic acid, castor oil fatty acid; and these can be used alone or in combination of two or more kinds.

[0024]

As one embodiment of the present invention, from the viewpoint of obtaining a stable emulsion, it is preferable that the organic acid is glutamic acid or aspartic acid.

In one embodiment of the present invention, from the viewpoint of obtaining a stable emulsion, the molar ratio of the amide alcohol represented by formula (I) and the organic acid is preferably in the range of 2:1 to 1:1.

[0025]

The conditioning composition of the present invention may further comprise an oil agent.

The oil agent used in the conditioning composition is not particularly limited as long as it is a component generally used in a conditioning composition; examples of which include oil agents such as animal and vegetable fats and oils, hydrocarbon oils, higher fatty acids, higher alcohols, ester oils, silicone oils; and these can be used alone or in combination of two or more kinds.

In one embodiment of the present invention, from the viewpoint of obtaining a stable emulsion, it is preferable that the oil agent is ester oil, silicone oil or hydrocarbon oil.

In one embodiment of the present invention, from the viewpoint of obtaining a stable emulsion, it is preferable that the oil agent is squalane, liquid paraffin and/or nonvolatile

hydrocarbon oil.

[0026]

<Other components>

The conditioning composition of the present invention may  
5 include any components used for textile, clothing and fabric  
products such as softening agents, or for cosmetics such as hair  
conditioners.

Examples of these additional components include  
surfactants; humectants such as 1,3-butylene glycol, propylene  
10 glycol, glycerin; ultraviolet absorbing agents such as ethylhexyl  
methoxycinnamate, hexyl diethylaminohydroxybenzoylbenzoate,;  
thickeners/gelling agents such as dextrin palmitate, xanthan gum;  
quality maintaining components such as antioxidant and  
preservative; medicinal components and active components such as  
15 whitening agent, anti-wrinkle agent, antioxidative agent;  
coloring agents; fragrances.

[0027]

In one embodiment of the present invention, the  
conditioning composition is substantially free of surfactant such  
20 as cationic surfactant.

Here, "surfactant" means a compound having both a  
hydrophilic group and a hydrophobic group in one molecule. In  
addition, in the present invention, "substantially free of  
surfactant" means that it comprises no surfactant at all or  
25 comprises a surfactant in an amount that does not emulsify. The  
amount that does not emulsify can be appropriately determined by  
a person skilled in the art according to the compositional ratio,  
for example, in one embodiment it is less than 2.0 mass%, in another  
embodiment it is less than 0.2 mass%, or less than 0.02 mass%.

30 In a particular embodiment of the invention, the

conditioning composition is an O/W emulsion composition substantially free of surfactant such as cationic surfactant.  
[0028]

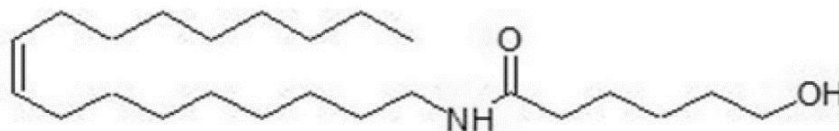
Hereinafter, the present invention will be described in more detail based on examples; however, the present invention is not limited to these examples, and various modifications can be made without departing from the technical idea of the present invention. In the present specification, unless otherwise specified, % means mass%.

**[Example]**

[0029]

Test Example 1

Treatments of the formulation in Table 1 were prepared using, as a conditioning agent, an amide alcohol having the following structure (hereinafter also referred to as amide alcohol OLH):



or a cationic surfactant steartrimonium chloride (STAC), stearamidopropyl dimethylamine (MPS).

[0030]

**[Table 1]**

Table 1: Formulation of treatments

|                             |                                | Example 1 | Comparative Example 1 | Comparative Example 2 |
|-----------------------------|--------------------------------|-----------|-----------------------|-----------------------|
| Oil phase                   | Squalane                       | 12.0      | 12.0                  | 12.0                  |
|                             | <b>Amide alcohol OLH</b>       | 3.0       | —                     | —                     |
|                             | Stearammonium chloride         | —         | 3.0                   | —                     |
|                             | Stearamidopropyl dimethylamine | —         | —                     | 3.0                   |
|                             | Cetostearyl alcohol            | 3.0       | 3.0                   | 3.0                   |
|                             | DPG                            | —         | 2.0                   | —                     |
| Aqueous phase               | Glycerin                       | 3.0       | 3.0                   | 3.0                   |
|                             | Glutamic acid                  | 0.6       | 0.6                   | 0.6                   |
|                             | Water                          | 78.4      | 76.4                  | 78.4                  |
| Feeling of use (evaluation) | Moisturizing feeling           | A         | C                     | C                     |
|                             | Settled feeling                | A         | C                     | C                     |
|                             | Smoothness                     | A         | C                     | C                     |

[0031]

[Manufacture]

Oil phase components are uniformly dissolved at 80°C.

- 5 Next, aqueous phase components are uniformly dissolved at 80°C. While stirring the oil phase at 80°C, the aqueous phase is gradually added and emulsified. It was cooled to room temperature while stirring, to obtain a treatment.

[0032]

- 10 <Conditioning effect on the hair>

[Evaluation of feeling of use]

- Regarding the evaluation of feeling of use on hair, after washing the hair with a shampoo, each treatment was applied, rinsed off, and the hair was dried with towel and then with a dryer;
- 15 the feeling of use was sensory-evaluated by ten panelists based on the feeling such as hand feel of the hair.

Based on 5 grades (5: very good, 4: good, 3: normal, 2: poor, 1: very poor), the average was calculated and ranked as follows.

[0033]

<Moisturizing feeling after shampooing>

A: Moisturizing (average of 4.0 or more in 5 grades)

B: Slightly moisturizing (average of 2.5 to 4.0 in 5 grades)

5 C: Not moisturizing/refreshing/dry, etc. (average of 2.5 or less in 5 grades)

<Settled feeling of the hair after shampooing>

A: Easy to settle (average of 4.0 or more in 5 grades)

B: Slightly easy to settle (average of 2.5 to 4.0 in 5 grades)

10 C: Hard to settle /not settled (average of 2.5 or less in 5 grades)

<Smoothness after shampooing>

A: Good smoothness (average of 4.0 or more in 5 grades)

B: Slightly good smoothness (average of 2.5 to 4.0 in 5 grades)

C: Poor smoothness (average of 2.5 or less in 5 grades evaluation)

15 [0034]

The treatment containing the amide alcohol showed good results in all of the moisturizing feeling, settled feeling, and smoothness, after washing the hair.

[0035]

20 [Evaluation of the sense of friction]

after washing the hair with a shampoo, each treatment was applied, rinsed off, and the hair was dried with towel and then with a dryer; the sense of friction of the hair was evaluated using Friction Tester KES-SE from Kato Tech Co., Ltd. The results are shown in Fig. 1.

25

The treatment containing the amide alcohol showed good results in terms of both slipperiness and roughness.

[0036]

[Evaluation of adsorptivity]

30 Regarding the adsorptivity to hair, after washing the hair

with a shampoo, each treatment was applied, rinsed off, and the hair was dried with towel and then with a dryer; the condition of the hair was observed using a digital microscope VHX-2000 from Keyence Corporation. The results are shown in Fig. 2.

5           In the formulation containing the amide alcohol, adsorption on the hair surface was observed.

[0037]

<Conditioning effect on the skin>

[Evaluation of the sense of friction]

10           Regarding the friction test of the skin, the above treatments were applied to artificial leather, spread five times, then washed with running water for about 15 seconds, and after wiping off the moisture with a paper towel, slipperiness/roughness were evaluated. As a device, Friction  
15   Tester KES-SE from Kato Tech Co., Ltd. was used. The results are shown in Fig. 3.

The treatment containing the amide alcohol showed good results also for the skin in terms of both slipperiness and roughness.

20   [0038]

[Evaluation of adsorptivity]

Regarding the adsorptivity to artificial leather, the appearance of the artificial leather after the above friction test was visually observed. The results are shown in Fig. 4.

25           It could be observed that the treatment remained on the surface of the artificial leather, and the highest adsorptivity was found for the treatment containing the amide alcohol.

[0039]

Test Example 2

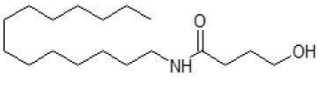
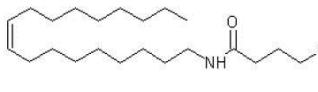
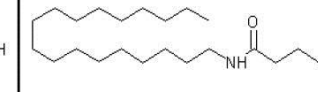
30           Using each of the amide alcohols listed in Table 2,

treatments listed in Table 3 were prepared.

<Amide alcohols used>

[Table 2]

Table 2: Amide alcohols used in Examples 2 to 4

|                    | Example 2                                                                         | Example 3                                                                          | Example 4                                                                           |
|--------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                    | Amide alcohol MB                                                                  | Amide alcohol OLB                                                                  | Amide alcohol STB                                                                   |
| Molecular weight   | 299.49                                                                            | 353.58                                                                             | 355.6                                                                               |
| Structural formula |  |  |  |

[0040]

[Table 3]

Table 3: Formulation of Examples 2 to 4

|               |    | Product name/Cosmetic label name | wt%  |
|---------------|----|----------------------------------|------|
| Oil phase     | 1. | Olive squalane<br>(Squalane)     | 6.0  |
|               | 2. | Behenyl alcohol                  | 5.0  |
|               | 3. | Amide alcohol                    | 3.0  |
| Aqueous phase | 4. | Triol VE<br>(Glycerin)           | 3.0  |
|               | 5. | Lactic acid                      | 0.4  |
|               | 6. | Purified water                   | 82.6 |

[0041]

[Preparation method]

The blending components of each phase were heated at 80°C and dissolved. After uniformly dissolving, the oil phase was added to the aqueous phase and emulsified with a homomixer (3000 rpm, 3 min). Subsequently, the emulsion was cooled to 30°C to

obtain a treatment preparation.

[0042]

[Evaluation]

Sense of friction was evaluated in the same manner as in  
5 Test Example 1. The results are shown in Fig. 5.

The treatments containing various types of amide alcohols  
showed good slipping property.

[0043]

Examples of each conditioning composition using an amide  
10 alcohol are described.

[0044]

[Example 5] Formulation of hair treatment

[Table 4]

|      |                          | <u>Blending amount (%)</u> |
|------|--------------------------|----------------------------|
| (1)  | Behenyl alcohol          | 5.0                        |
| (2)  | Cetyl palmitate          | 4.0                        |
| (3)  | <b>Amide alcohol OLH</b> | 2.5                        |
| (4)  | Isopropyl palmitate      | 1.0                        |
| (5)  | Jojoba oil               | 1.0                        |
| (6)  | Glyceryl stearate        | 0.5                        |
| (7)  | Glycerin                 | 3.0                        |
| (8)  | Pentylene glycol         | 2.0                        |
| (9)  | Hydroxyethyl cellulose   | 0.3                        |
| (10) | Glutamic acid            | 0.5                        |
| (11) | Hydrolyzed silk          | 0.01                       |
| (12) | Purified water           | <u>Balance</u>             |

15 [0045]

(1) to (5) are uniformly dissolved at 80°C (oil phase).  
Next, an aqueous phase is prepared by uniformly dissolving (6)  
to (11) at 80°C. While stirring the oil phase at 80°C, the aqueous  
phase is gradually added and emulsified. The emulsion was cooled  
20 to room temperature with stirring to obtain a hair treatment.

[0046]

[Example 6] Hair styling agent

[Table 5]

|     |                          | <u>Blending amount (%)</u> |
|-----|--------------------------|----------------------------|
| (1) | Squalane                 | 12.0                       |
| (2) | <b>Amide alcohol OLH</b> | 3.5                        |
| (3) | Candelilla wax           | 4.0                        |
| (4) | Microcrystalline wax     | 3.0                        |
| (5) | Behenyl alcohol          | 2.5                        |
| (6) | Isostearic acid          | 0.9                        |
| (7) | Hydroxyethyl cellulose   | 0.4                        |
| (8) | Pentylene glycol         | 3.0                        |
| (9) | Purified water           | <u>Balance</u>             |

[0047]

5           (1) to (6) are uniformly dissolved at 80°C (oil phase).  
Next, an aqueous phase is prepared by uniformly dissolving (7)  
to (9) at 80°C. While stirring the aqueous phase at 80°C, the  
oil phase is gradually added and emulsified. The emulsion was  
cooled to room temperature with stirring to obtain a hair styling  
10 agent.

[0048]

[Example 7] Body lotion

[Table 6]

|     |                                              | <u>Blending amount (%)</u> |
|-----|----------------------------------------------|----------------------------|
| (1) | Squalane                                     | 12.0                       |
| (2) | <b>Amide alcohol OLH</b>                     | 1.5                        |
| (3) | Hydrogenated castor oil alcohol              | 3.5                        |
| (4) | Isostearic acid                              | 0.3                        |
| (5) | Glycerin                                     | 3.0                        |
| (6) | Pentylene glycol                             | 1.0                        |
| (7) | Ammonium Acryloyldimethyltaurate/VP Copolyme | 0.3                        |
| (8) | Purified water                               | <u>Balance</u>             |

15 [0049]

(1) to (4) are uniformly dissolved at 80°C (oil phase).  
 Next, an aqueous phase is prepared by uniformly dissolving (5)  
 to (8) at 80°C. While stirring the aqueous phase at 80°C, the  
 oil phase is gradually added and emulsified. The emulsion was  
 5 cooled to room temperature while stirring to obtain a body lotion.  
 [0050]

[Example 8] Emulsion foundation

[Table 7]

|                                                                    | Blending<br>amount (%) |
|--------------------------------------------------------------------|------------------------|
| (1) Silicone-coated titanium oxide                                 | 18.0                   |
| (2) Silicone-coated iron oxide(red)                                | 0.3                    |
| (3) Silicone-coated iron oxide(black)                              | 0.015                  |
| (4) Silicone-coated iron oxide(yellow)                             | 1.2                    |
| (5) Hydrogenated polyisobutene                                     | 20.0                   |
| (6) Isodecyl neopentanoate                                         | 15.0                   |
| (7) Trimethylsiloxy silicate/decamethylcyclopentasiloxane solution | 5.0                    |
| (8) <b>Amide alcohol OLH</b>                                       | 3.0                    |
| (9) 1,3-butylene glycol                                            | 3.0                    |
| (10) Glutamic acid                                                 | 0.6                    |
| (11) Ion exchanged water                                           | <u>Balance</u>         |

10 [0051]

(1) to (8) are uniformly dispersed at 80°C (oil phase).  
 Next, an aqueous phase is prepared by uniformly dissolving (9)  
 to (11) at 80°C. While adding the oil phase to the aqueous phase  
 heated to 80°C, the mixture is stirred with a disperser and  
 15 emulsified. It was cooled to room temperature to obtain an  
 emulsion foundation.

[0052]

[Example 9] Emollient cream

[Table 8]

|                                                          |                                              | Blending amount   |
|----------------------------------------------------------|----------------------------------------------|-------------------|
|                                                          |                                              | (%)               |
| (1)                                                      | Behenyl alcohol                              | 1.0               |
| (2)                                                      | Batyl alcohol                                | 0.5               |
| (3)                                                      | Hydrogenated polyisobutene                   | 3.0               |
| (4)                                                      | Liquid paraffin                              | 8.0               |
| (5)                                                      | Isostearyl neopentanoate                     | 6.0               |
| Trade name: Neolight 180P, Kokyu Alcohol Kogyo Co., Ltd. |                                              |                   |
| (6)                                                      | Fragrance                                    | Reasonable amount |
| (7)                                                      | <b>Amide alcohol OLH</b>                     | 2.0               |
| (8)                                                      | Ethyl paraben                                | 0.1               |
| (9)                                                      | Butyl paraben                                | 0.1               |
| (10)                                                     | Tocopherol                                   | 0.5               |
| (11)                                                     | Ammonium Acryloyldimethyltaurate/VP Copolyme | 0.5               |
| (12)                                                     | Polyethylene glycol 20000                    | 1.0               |
| (13)                                                     | Crataegus cuneata fruit extract              | 0.1               |
| (14)                                                     | Syzygium jambos leaf extract                 | 0.1               |
| (15)                                                     | Aloe extract                                 | 0.1               |
| (16)                                                     | Sanguisorba officinalis root extract         | 0.1               |
| (17)                                                     | Eugenia Caryophyllus (clove) flower extract  | 0.1               |
| (18)                                                     | Houttuynia cordata extract                   | 0.1               |
| (19)                                                     | Althaea officinalis root extract             | 0.1               |
| (20)                                                     | Lithospermum officinale root extract         | 0.1               |
| (21)                                                     | 1,3-butylene glycol                          | 3.0               |
| (22)                                                     | Glycerin                                     | 5.0               |
| (23)                                                     | Glutamic acid                                | 0.4               |
| (24)                                                     | Ion exchanged water                          | <u>Balance</u>    |

[0053]

(11) to (24) are uniformly dissolved at 80°C (aqueous phase). Meanwhile, (1) to (10) are uniformly dissolved at 80°C, added to the aqueous phase, and stirred at 80°C with a disperser. After emulsification was completed, it was cooled to room temperature to obtain an emollient cream.

[0054]

[Example 10] Whitening cream

10 [Table 9]

|      |                                                           | Blending amount |
|------|-----------------------------------------------------------|-----------------|
|      |                                                           | (%)             |
| (1)  | Palmitic acid                                             | 2.0             |
| (2)  | Cetyl alcohol                                             | 1.5             |
| (3)  | Vaseline                                                  | 0.5             |
| (4)  | Squalane                                                  | 5.0             |
|      | Trade name: Olive squalane, Kokyu Alcohol Kogyo Co., Ltd. |                 |
| (5)  | Triethylhexanoin                                          | 3.0             |
|      | Trade name: TOG, Kokyu Alcohol Kogyo Co., Ltd.            |                 |
| (6)  | Hexyl laurate                                             | 2.0             |
|      | Trade name: KAK HL, Kokyu Alcohol Kogyo Co., Ltd.         |                 |
| (7)  | <b>Amide alcohol OLH</b>                                  | 2.5             |
| (8)  | Fragrance                                                 | 0.1             |
| (9)  | Tranexamic acid                                           | 2.0             |
| (10) | Glutamic acid                                             | 0.5             |
| (11) | Ammonium Acryloyldimethyltaurate/VP Copolyme              | 0.5             |
| (12) | Xanthan gum                                               | 0.1             |
| (13) | Methyl paraben                                            | 0.1             |
| (14) | Phenoxyethanol                                            | 0.1             |
| (15) | Glycerin                                                  | 3.0             |
| (16) | Hypericum perforatum extract                              | 0.1             |
| (17) | Melilot extract                                           | 0.1             |
| (18) | Royal jelly extract                                       | 0.1             |
| (19) | Ion exchanged water                                       | <u>Balance</u>  |

[0055]

(9) to (19) are uniformly heated at 80°C (aqueous phase).  
Next, the oil phase of (1) to (8) is uniformly dissolved at 80°C.

- 5 The oil phase heated to 80°C is added to the aqueous phase heated to 80°C, and the mixture is stirred with a homomixer and emulsified. Upon completion of the emulsification, it was cooled to room temperature to obtain a whitening cream.

[0056]

- 10 [Example 11] Oil-in-water emulsion sunscreen

[Table 10]

|                                                           |                                                    | Blending amount |
|-----------------------------------------------------------|----------------------------------------------------|-----------------|
|                                                           |                                                    | (%)             |
| (1)                                                       | Octyl p-methoxycinnamate                           | 6.0             |
| (2)                                                       | Glyceryl octyl di-p-methoxycinnamate               | 2.0             |
| (3)                                                       | 4-tert-buty-4'-methoxydibenzoylmethane             | 2.0             |
| (4)                                                       | Tetra(octanoate/p-methoxycinnamate)pentaerythritol | 3.0             |
| (5)                                                       | Ethylhexyl isononanoate                            | 12.0            |
| Trade name: ES108109, Kokyu Alcohol Kogyo Co., Ltd.       |                                                    |                 |
| (7)                                                       | Squalane                                           | 6.0             |
| Trade name: Olive squalane, Kokyu Alcohol Kogyo Co., Ltd. |                                                    |                 |
| (8)                                                       | <b>Amide alcohol OLH</b>                           | 3.0             |
| (9)                                                       | Microcrystalline wax                               | 0.1             |
| (10)                                                      | Fragrance                                          | 0.1             |
| (11)                                                      | Ion exchanged water                                | <u>Balance</u>  |
| (12)                                                      | Dipropylene glycol                                 | 5.0             |
| (13)                                                      | Methyl paraben                                     | 0.2             |
| (14)                                                      | Ammonium Acryloyldimethyltaurate/VP Copolyme       | 0.3             |
| (15)                                                      | Glutamic acid                                      | 0.6             |

[0057]

(11) to (15) are uniformly dissolved at 80°C (aqueous phase) .  
Next, the oil phase of (1) to (10) is uniformly dissolved at 80°C.

- 5 The oil phase at 80°C is added to the aqueous phase heated to 80°C and stirred with a disperser. Upon completion of the emulsification, it was cooled to room temperature to obtain an oil-in-water emulsion sunscreen.

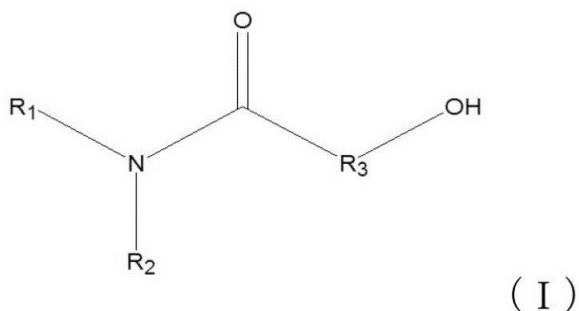
#### **[Industrial Applicability]**

10 [0058]

It is possible to provide a conditioning agent and a conditioning composition which have high adsorptivity to fibers, hair and skin and give smoothness thereto.

## CLAIMS

1. A conditioning agent comprising an amide alcohol represented by formula (I):



wherein

R<sub>1</sub> is a C6-C22 hydrocarbon group which may be substituted,

R<sub>2</sub> is H, or a C6-C22 hydrocarbon group which may be substituted,

R<sub>3</sub> is a linear or branched C2-C21 hydrocarbon group which may be substituted.

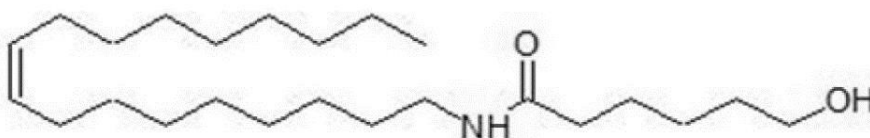
2. The conditioning agent according to Claim 1, comprising the amide alcohol represented by formula (I), wherein

R<sub>1</sub> is a C10-C22 hydrocarbon group,

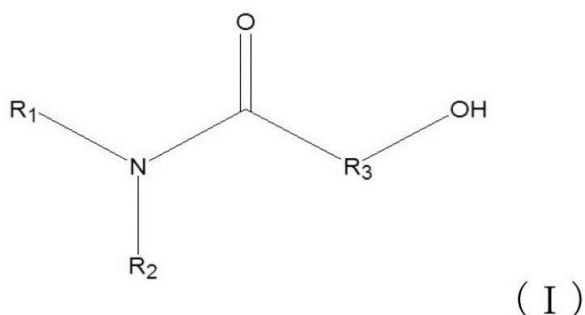
R<sub>2</sub> is H,

R<sub>3</sub> is a C3-C12 hydrocarbon group.

3. The conditioning agent according to Claim 1 or 2, wherein the amide alcohol is:



4. A conditioning composition comprising an organic acid and an amide alcohol represented by formula (I):



5 wherein

R<sub>1</sub> is a C6-C22 hydrocarbon group which may be substituted,  
R<sub>2</sub> is H, or a C6-C22 hydrocarbon group which may be substituted,  
R<sub>3</sub> is a linear or branched C2-C21 hydrocarbon group which may be substituted.

10

5. The composition according to Claim 4, comprising:  
0.1 to 10.0 mass% of the amide alcohol represented by formula (I),  
and  
0.1 to 10.0 mass% of the organic acid.

15

6. The composition according to Claim 4 or 5, wherein the molar ratio of the amide alcohol represented by formula (I) to the organic acid is from 2:1 to 1:1.

20

7. The composition according to any one of Claims 4 to 6, wherein the organic acid is one or more selected from the group consisting of a monocarboxylic acid, a dicarboxylic acid, a hydroxycarboxylic acid, a polycarboxylic acid, an acidic amino acid, and a fatty acid.

8. The composition according to any one of Claims 4 to 7, comprising one or more oil agents selected from the group consisting of ester oils, silicone oils, and hydrocarbon oils.
- 5
9. The composition according to Claim 8, which is an O/W emulsion composition.
10. The composition according to Claim 9, which is free of surfactant.
- 10
11. The composition according to any one of Claims 4 to 10, comprising glutamic acid as an organic acid.
- 15
12. The composition according to any one of Claims 8 to 11, comprising one or more selected from the group consisting of squalane, liquid paraffin, and nonvolatile hydrocarbon oil as an oil agent.
- 20
13. The composition according to any one of Claims 4 to 12, which is hair and/or skin cosmetics.