DESCRIPTION

OIL-IN-WATER EMULSION COMPOSITON FOR CREAMY COSMETIC, AND COSMETIC

Technical Field

[0001]

The present invention relates to an oil-in-water emulsion composition for a creamy cosmetic, as well as to a cosmetic.

Background Art

[0002]

An emulsion composition is obtained by mixing oily components and water-soluble components, followed by homogeneous emulsification, and is mainly used in skin-care products such as cream or milky lotion in cosmetic application. These skin-care products are aimed at effectively compensate moisture and oil. Needless to say, they are required to realize excellent feeling in use. On the other hand, water contents may be separated with the passage of time after production. It is concerned that occurrence of such water separation may adversely affect the quality of an emulsion composition. Therefore, an emulsion composition is required to have not only an excellent feeling in use but also stability of emulsification with the passage of time (hereinafter referred to as emulsification stability), and hence, it is essential that the so-called amphiphilic material be contained in a composition as an emulsifier. In particular, improving emulsification stability by using a synthetic surfactant that is highly effective as an emulsifier and can be produced at a low cost has been generally conducted.

[0003]

On the other hand, some synthetic surfactants easily induce an irritating reaction on skin, causing the skin to be rough. Therefore, for an emulsion composition for a cosmetic that is frequently used for skin, not a few consumers require products that have excellent emulsification stability and feeling in use without containing a synthetic surfactant.

[0004]

As the technology for producing an emulsion composition for a cosmetic without containing a synthetic surfactant, a method can be given in which a higher alcohol is contained, as disclosed in the cited documents 1 and 2. By producing an emulsion composition for a cosmetic by containing a higher alcohol, it is possible to improve its emulsification stability.

A method is also proposed in which an emulsion composition for a cosmetic is produced without containing a synthetic surfactant by using both oily components that are liquid at normal temperature and oily components that are solid at normal temperature, and stirring these oily components at a high speed under heating conditions with an aqueous solution of an alkali-neutralized salt of a carboxyvinyl polymer (aqueous gel) (see Patent Document 3).

Further, also proposed is production of an emulsion composition for a cosmetic without containing a synthetic surfactant by including a water-soluble polymer such as carrageenan (see Patent

Document 4).

Related Art Documents

Patent Documents

[0005]

Patent Document 1: JP-A-H06-271421

Patent Document 2: JP-A-H07-267814

Patent Document 3: JP-A-2004-224722

Patent Document 4: JP-A-H08-245363

Patent Document 5: JP-A-S59-139920

Summary of the Invention

Problems to be Solved by the Invention

[0006]

However, stabilization of an emulsion composition with a higher alcohol requires incorporation of a relatively large amount of a higher alcohol. Therefore, depending on the composition, feeling in use may be deteriorated (e.g. feeling of being thickly coated or powdery feel). Therefore, it is more preferable if stability of an emulsion composition can be improved without using a higher alcohol.

Further, in a method where oily components for a cosmetic which are liquid at normal temperature and oily components for a cosmetic which are solid at normal temperature are stirred at a high speed under heating conditions with an aqueous gel, the production process becomes slightly complicated since the adjustment of the aqueous gel is required. In addition, there is a problem that if a large amount of gel is contained in an emulsion composition, feeling in use becomes difficult to be controlled.

Further, when a water-soluble polymer is used, viscosity or hardness of an emulsion changes with the passage of time, causing a problem regarding storage. In addition, both an aqueous phase and an oil phase are not dissolved easily, and hence, an emulsion tends to be swollen to cause formation of lumps. As a result, a problem arises that it becomes necessary to dissolve it in a polyvalent alcohol such as glycerin in advance, or to apply a mechanical force by means of a homogenizer or the like, thus making steps complicated.

[0007]

The inventors of the present invention made intensive studies, and they successfully realized excellent emulsification stability without using a synthetic surfactant by containing, as fatty acids and fatty acid alkali salts, behenic acid, stearic acid and palmitic acid and alkali salts of these three types of fatty acids in an emulsion composition. The present invention has been completed based on this finding.

[0008]

Patent Document 5 discloses a technology of using, in cosmetics such as a milky lotion, cream and foundation, an oil-in-water emulsion containing three or more in total of fatty acids including at least one of straight-chain saturated fatty acids such as behenic acid, stearic acid and palmitic acid

and at least one of fatty acids that are liquid at room temperature in an amount of 0.5 to 5 wt% in terms of salts. However, in this technology, since a synthetic surfactant is used or a large amount of a higher alcohol is contained, rough skin occurs or feeling in use is deteriorated.

[0009]

The present invention has been made in view of the above-mentioned circumstances, and is aimed at providing an oil-in-water emulsion composition for a creamy cosmetic, and a cosmetic, having both excellent stability that resists water separation substantially without containing any synthetic surfactant, and excellent feeling in use such as compatibility.

Means for Solving the Problem

[0010]

In order to attain this object, the oil-in-water emulsion composition for a creamy cosmetic according to the embodiment of the present invention containing water, oily components, fatty acids and fatty acid alkali salts and having a viscosity of 2,000 to 90,000 mPa・s,

the oil-in-water emulsion composition for a creamy cosmetic substantially comprising no synthetic surfactant in the entire composition,

behenic acid, stearic acid and palmitic acid being contained as the fatty acid and the total content of the fatty acids and the fatty acid alkali salts being 3 to 15 wt%,

the weight ratio of the behenic acid/the stearic acid/the palmitic acid in the fatty acids being 13 to 68/17 to 57/15 to 50, and

the weight ratio of the behenic acid alkali salt/the stearic acid alkali salts/the palmitic acid alkali salts in the fatty acid alkali salts being 13 to 68/17 to 57/15 to 50.

[0011]

The oil-in-water emulsion composition for a creamy cosmetic according to the present invention comprise fatty acid alkali salts in an amount of 20 to 45 wt% relative to the total content of the fatty acids and the fatty acid alkali salts contained in the oil-in-water emulsion composition for a creamy cosmetic.

[0012]

The oil-in-water emulsion composition for a creamy cosmetic according to the present invention comprises a higher alcohol in an amount of 0.1 to 1 wt% in the entire oil-in-water emulsion composition for a creamy cosmetic.

Further, in the oil-in-water emulsion composition for a creamy cosmetic according to the present invention, the weight ratio of the higher alcohol and the fatty acid contained in the oil-in-water emulsion composition for a creamy cosmetic is less than 1/2.

[0013]

The oil-in-water emulsion composition for a creamy cosmetic according to the present invention comprises oily components excluding behenic acid, stearic acid and palmitic acid in an amount of 2 to 14 wt% in the entire oil-in-water emulsion composition.

The oil-in-water emulsion composition for a creamy cosmetic according to the present

invention comprises only behenic acid, stearic acid and palmitic acid as the fatty acids.

The cosmetic according to the present invention comprises the above-mentioned oil-in-water emulsion composition for a creamy cosmetic.

Advantageous Effects of the Invention

[0014]

According to the present invention, it is possible to provide an oil-in-water emulsion composition for a creamy cosmetic, and a cosmetic, having both excellent stability that resists water separation substantially without containing any synthetic surfactant, and excellent feeling in use such as compatibility.

Brief Description of the Drawings

[0015]

Fig. 1 is a view showing the results of Experiment 1 conducted in order to specify a preferable blending ratio of behenic acid, stearic acid and palmitic acid in the oil-in-water emulsion composition for a creamy cosmetic according to the embodiment of the present invention;

Fig. 2 is a view showing the results of Experiment 2 conducted in order to specify a preferable blending ratio of behenic acid, stearic acid and palmitic acid in the oil-in-water emulsion composition for a creamy cosmetic according to the embodiment of the present invention;

Fig. 3 is a view showing the results of Experiment 3 conducted in order to specify a preferable blending ratio of behenic acid, stearic acid and palmitic acid in the oil-in-water emulsion composition for a creamy cosmetic according to the embodiment of the present invention;

Fig. 4 is a ternary diagram showing a preferable blending ratio of behenic acid, stearic acid and palmitic acid in the oil-in-water emulsion composition for a creamy cosmetic according to the embodiment of the present invention;

Fig. 5 is a view showing the results of Experiment 4 conducted in order to specify a preferable amount ratio of fatty acid alkali salts (soap component) in the oil-in-water emulsion composition for a creamy cosmetic according to the embodiment of the present invention;

Fig. 6 is a view showing the results of Experiment 5 conducted in order to specify a preferable total content of fatty acids and fatty acid alkali salts contained in the oil-in-water emulsion composition for a creamy cosmetic according to the embodiment of the present invention;

Fig. 7 is a view showing the results of Experiment 6 conducted in order to examine effects on emulsification stability, viscosity and feeling in use exerted by combined use of a higher alcohol in the oil-in-water emulsion composition for a creamy cosmetic according to the embodiment of the present invention; and

Fig. 8 is a view showing the results of Experiment 7 conducted in order to specify a preferable combination of blended fatty acids in the oil-in-water emulsion composition for a creamy cosmetic according to the embodiment of the present invention.

Mode for Carrying out the Invention

[0016]

A preferable embodiment of the present invention will be explained in detail below.

The oil-in-water emulsion composition for a creamy cosmetic according to the embodiment of the present invention containing water, oily components, fatty acids and fatty acid alkali salts and having a viscosity of 2,000 to 90,000 mPa・s,

the oil-in-water emulsion composition for a creamy cosmetic substantially comprising no synthetic surfactant in the entire composition,

behenic acid, stearic acid and palmitic acid being contained as the fatty acid and the total content of the fatty acids and the fatty acid alkali salts being 3 to 15 wt%,

the weight ratio of the behenic acid/the stearic acid/the palmitic acid in the fatty acids being 13 to 68/17 to 57/15 to 50, and

the weight ratio of the behenic acid alkali salt/the stearic acid alkali salt/the palmitic acid alkali salt in the fatty acid alkali salts being 13 to 68/17 to 57/15 to 50.

[0017]

That is, in an emulsion composition for a cosmetic, if a synthetic surfactant is not used or the amount of a higher alcohol is reduced, emulsification stability is significantly reduced. In the oil-in-water emulsion composition for a creamy cosmetic according to this embodiment, by using behenic acid, stearic acid, palmitic acid and alkali salts of these three types of fatty acids at a specific composition, formation of liquid crystals is accelerated in an outer phase, whereby emulsifiability and stability are significantly improved. At the same time, hardness is generated (increase in viscosity) in an emulsified product, and fluidity of the outer phase is suppressed, whereby emulsification can be prevented from being unstable.

In addition, by combined use of a higher alcohol that has conventionally been known as an approach for realizing stable emulsification without using a synthetic surfactant, since the amount of a higher alcohol is relatively large (1% or more), deterioration in feeling in use such as feel of being thickly coated or poor compatibility tends to occur. On the other hand, according to the oil-in-water emulsion composition for a creamy cosmetic according to this embodiment, sufficient emulsification stability can be obtained in a state where no higher alcohol is added, and significant improvement in stability can be attained by adding a small amount of a higher alcohol (e.g. 0.25%). Therefore, it is possible to obtain an emulsion composition that is excellent both in emulsification stability and feeling in use.

[0018]

The “oil-in-water emulsion composition for a creamy cosmetic” according to this embodiment includes a wide variety of emulsion compositions used for make-up or beauty.

As a product comprising the oil-in-water emulsion composition for a creamy cosmetic according to this embodiment, moisturizing cream, cleansing cream, cold cream, vanishing cream, nourishing cream, foundation cream, shaving cream, hair cream, hand cream, body cream, shampoo, conditioner, milky lotion or the like can be given.

[0019]

The oil-in-water emulsion composition for a creamy cosmetic according to this embodiment comprises three types of acids; i.e. behenic acid, stearic acid and palmitic acid, as the “fatty acid”.

The oil-in-water emulsion composition for a creamy cosmetic according to this embodiment comprises behenic acid alkali salts, stearic acid alkali salts and palmitic acid alkali salts as the “fatty acid alkali salts (soap component)”.

The alkali salts of these fatty acids can be contained in the oil-in-water emulsion composition for a creamy cosmetic by reacting a fatty acid and an alkali in a reaction system when producing an oil-in-water emulsion composition for a creamy cosmetic.

The fatty acid alkali salts can be contained in the oil-in-water emulsion composition for a creamy cosmetic by blending fatty acid alkali salts that have been prepared in advance.

Further, by using in combination a reaction between a fatty acid and an alkali in a reaction system and blending of fatty acid alkali salts that have been prepared in advance, it is possible to allow the fatty acid alkali salts to be contained in the oil-in-water emulsion composition for a creamy cosmetic.

[0020]

In producing the oil-in-water emulsion composition for a creamy cosmetic according to this embodiment, when allowing fatty acid alkali salts to be contained in the oil-in-water emulsion composition for a creamy cosmetic through a reaction of a fatty acid and an alkali in a reaction system, the oil-in-water emulsion composition for a creamy cosmetic contains fatty acid alkali salts obtained by the reaction and fatty acids that remain without being reacted (remaining fatty acids).

[0021]

In producing the oil-in-water emulsion composition for a creamy cosmetic according to this embodiment, when allowing fatty acid alkali salts to be contained in the oil-in-water emulsion composition through a reaction of a fatty acid and an alkali in a reaction system, it can be considered that the ratio of behenic acid, stearic acid and palmitic acid (these three fatty acids may be referred to as “blended fatty acids”) is equal to the amount ratio of behenic acid, stearic acid and palmitic acid contained in the produced oil-in-water emulsion composition for a creamy cosmetic and the amount ratio of a behenic acid alkali salt, a stearic acid alkali salt and a palmitic acid alkali salt contained in the produced oil-in-water emulsion composition for a creamy cosmetic.

[0022]

As the behenic acid alkali salt, an anionic surfactant such as sodium behenate and potassium behenate can be given, with potassium behenate being particularly preferable.

Similarly, as the stearic acid alkali salt, an anionic surfactant such as sodium stearate and potassium stearate can be given, with potassium stearate being particularly preferable.

Further, similarly, as the palmitic acid alkali salt, an anionic surfactant such as sodium palmitate and potassium palmitate can be given, with potassium palmitate being particularly preferable.

[0023]

The oil-in-water emulsion composition according to this embodiment comprises 13 to 68 wt% of behenic acid, 17 to 57 wt% of stearic acid and 15 to 50 wt% of palmitic acid relative to the total (100 wt%) of the fatty acids. Further, the oil-in-water emulsion composition according to this embodiment comprises 13 to 68 wt% of a behenic acid alkali salt, 17 to 57 wt% of a stearic acid alkali salt and 15 to 50 wt% of a palmitic acid alkali salt relative to the total (100 wt%) of the fatty acid alkali salts.

That is, in Fig. 4, the fatty acid and the fatty acid alkali salts are contained in a weight ratio in a

range surrounded by the following 5 points: (A=68,B=17,C=15);
(A=28,B=57,C=15);(A=13,B=57,C=30);(A=13,B=37,C=50); and (A=33,B=17,C=50)

By allowing the amount ratio of behenic acid, stearic acid and palmitic acid and the alkali salts of these three types of fatty acids to be within this range, the resulting oil-in-water emulsion composition hardly suffers water separation and can keep stable condition for a long period of time. In addition, feeling in use can become excellent.

[0024]

In this respect, it is preferred that the oil-in-water emulsion for a creamy cosmetic according to this embodiment comprise 20 to 60 wt% of behenic acid, 20 to 57 wt% of stearic acid and 20 to 40 wt% of palmitic acid relative to the total (100 wt%) of the fatty acids and that the oil-in-water emulsion composition according to this embodiment comprises 20 to 60 wt% of an alkali salt of behenic acid, 20 to 57 wt% of an alkali salt of stearic acid and 20 to 40 wt% of an alkali salt of palmitic acid relative to the total (100 wt%) of the fatty acid alkali salts.

That is, in Fig. 4, the fatty acids and the fatty acid alkali salts are preferably contained in a weight ratio in a range surrounded by the following 5 points:
(A=60,B=20,C=20);(A=23,B=57,C=20);(A=20,B=57,C=23);(A=20,B=40,C=40); and (A=40,B=20,C=40)

[0025]

It is more preferred that the oil-in-water emulsion for a creamy cosmetic according to this embodiment comprise 20 to 40 wt% of behenic acid, 30 to 50 wt% of stearic acid and 30 to 40 wt% of palmitic acid relative to the total (100 wt%) of the fatty acids and that the oil-in-water emulsion composition according to this embodiment comprises 20 to 40 wt% of a behenic acid alkali salt, 30 to 50 wt% of a stearic acid alkali salt and 30 to 40 wt% of a palmitic acid alkali salt relative to the total (100 wt%) of the fatty acid alkali salts.

That is, in Fig. 4, it is more preferred that the fatty acids and the fatty acid alkali salts be contained in a weight ratio in a range surrounded by the following 4 points:
(A=40,B=30,C=30);(A=20,B=50,C=30);(A=20,B=40,C=40); and (A=30,B=30,C=40)

[0026]

In the oil-in-water emulsion composition for a creamy cosmetic according to this embodiment, it is preferred that the total content of the fatty acids and the fatty acid alkali salts contained in the oil-in-water emulsion composition for a creamy cosmetic be 3 to 15 wt% relative to the total amount of the oil-in-water emulsion composition for a creamy cosmetic.

By allowing the total content of the fatty acids and the fatty acid alkali salts to be in this range, the resulting oil-in-water emulsion composition for a creamy cosmetic hardly suffers water separation and can have excellent feeling in use. Also, the viscosity thereof can be further appropriate.

In this respect, the total content of the fatty acids and the fatty acid alkali salts is more preferably 4 to 13 wt%, further preferably 9 to 13 wt% and still further preferably 10 to 12 wt% relative to the total amount of the oil-in-water emulsion composition for a creamy cosmetic.

[0027]

The oil-in-water emulsion composition for a creamy cosmetic according to this embodiment is produced to have hardness in conformity to the viscosity thereof. It can be used particularly preferably

when the viscosity is 2000 to 90000 mPa·s.

[0028]

In the oil-in-water emulsion composition for a creamy cosmetic according to this embodiment, a behenic acid alkali salt, a stearic acid alkali salt and a palmitic acid alkali salt as the fatty acid alkali salt function as an emulsifier.

It is preferred that, in the oil-in-water emulsion composition for a creamy cosmetic according to this embodiment, the content of the fatty acid alkali salts be 20 to 45 wt% relative to the total content of the fatty acids and the fatty acid alkali salts.

By allowing the content of the fatty acid alkali salts to be in this range, it is possible to improve both stability and feeling in use of the resulting oil-in-water emulsion composition for a creamy cosmetic.

In this respect, it is preferable to allow the content of the fatty acid alkali salts to be 24 to 42 wt% relative to the total content of the fatty acids and the fatty acid alkali salts, with 26 to 42 wt% being further preferable.

[0029]

The oil-in-water emulsion composition for a creamy cosmetic according to this embodiment can be produced by mixing and emulsifying oily components containing behenic acid, stearic acid and palmitic acid and aqueous components containing water in the presence of the fatty acid alkali salts by means of an emulsification machine.

The oily components excluding behenic acid, stearic acid and palmitic acid, that are raw materials for the oil-in-water emulsion composition for a creamy cosmetic according to this embodiment, are not particularly restricted as long as they are oily components incorporated into a normal oil-in-water emulsion composition. For example, acyl glycerol such as olive oil, almond oil, sesame oil, avocado oil, castor oil, camellia oil, macadamia nut oil, hazelnut oil, kukui nut oil, rose hip oil, apricot kernel oil, rapeseed oil, baobab oil, argania spinosa kernel oil, sunflower oil, rice bran oil, jojoba oil, linseed oil, corn oil, grape seed oil, wheat germ oil, rice germ oil, cotton seed oil, soybean oil, peanut oil, tea seed oil, evening primrose oil, mink oil, egg yolk oil, coconut oil, palm oil, palm kernel oil, shea butter, cocoa butter, beef tallow, mutton tallow, lard, horse fat, hydrogenated oil, fractionated oil and transesterified oil thereof, waxes such as beeswax, candelilla wax, carnauba wax, Japan wax, jojoba wax, cotton wax, sunflower wax, rice wax and lanolin, and hydrocarbon oil such as squalane and squalene can be appropriately contained.

In the oil-in-water emulsion composition for a creamy cosmetic according to this embodiment, the content of oily components excluding behenic acid, stearic acid and palmitic acid is preferably 2 to 14 wt%, for example, relative to the total amount of the oil-in-water emulsion composition for a creamy cosmetic.

[0030]

The water-soluble components that are raw materials of the oil-in-water emulsion composition for a creamy cosmetic according to this embodiment are not limited to water. Other components such as a moisturizer can be contained. As the moisturizer, glycerin, propanediol, 1,3-butylene glycol, sorbitol, xylitol, inositol, trehalose, betaine, glucose, maltose, maltitol, D-mannitol, sucrose, fructose, raffinose, sodium hyaluronate, glucosyl ceramide, starch decomposition sugar, starch degradation

reducing alcohol, or the like can be given.

In the oil-in-water emulsion composition for a creamy cosmetic according to this embodiment, the content of the moisturizer may be 2 to 25 wt% relative to the total amount of the oil-in-water emulsion composition for a creamy cosmetic according to this embodiment.

[0031]

In the oil-in-water emulsion composition for a creamy cosmetic according to this embodiment, various extracts having a variety of medical effects can be contained as other components of the water-soluble components. For example, aloe extract, fennel extract, chamomile extract, capillary artemisia extract, kuma bamboo grass extract, citrus unshiu peel, white birch extract, loquat extract, mint extract, fucus extract, moutan bark extract, loofah extract, soapberry extract, rehmannia glutinosa root extract, Japanese honeysuckle extract, houttuynia cordata extract, sanguisorba officinalis root extract, green tea extract, cork tree bark extract, sage extract, rosemary extract, clove extract, licorice extract, quince seed extract, persimmon leaves extract, peppermint extract, coix seed extract, hawthorn extract, rose canina fruit extract, bilberry extract, pomegranate extract, rice bran extract, ginseng extract, ginseng extract, tomato extract, mulberry bark extract, peony root extract, saxifrage extract, eucalyptus extract, placenta extract, silk extract or the like can be contained.

[0032]

In producing the oil-in-water emulsion composition for a creamy cosmetic according to this embodiment, when the fatty acid alkali salts are incorporated into the oil-in-water emulsion composition through a reaction of a fatty acid and an alkali in a reaction system, as mentioned above, it is preferred that the alkali be blended such that the content of the fatty acid alkali salts be 20 to 45 wt%, more preferably 24 to 42 wt%, and further preferably 26 to 42 wt%, relative to the total content of the fatty acids and the fatty acid alkali salts.

As the alkali, potassium hydroxide, sodium hydroxide or the like can be used, and potassium hydroxide is preferably used.

[0033]

The oil-in-water emulsion composition for a creamy cosmetic according to this embodiment can be produced without containing a synthetic surfactant. The “synthetic surfactant” means a component having both a hydrophilic group and a lipophilic group in a molecule, and is not naturally present among components having emulsification capability, solubility, dispersion power or the like.

Specifically, as synthetic surfactants, sucrose fatty acid esters, sorbitan fatty acid esters, POE-sorbitan fatty acid esters, fatty acid alkanolamides, POE-alkyl ether, POE-alkyl phenyl ethers, POE・POP-glycol, POE・POP-alkyl ethers and derivatives thereof can be given (POE indicates a polyoxyethylene chain and POP indicates a polyoxypropylene chain).

The soap component contained in the oil-in-water emulsion composition for a creamy cosmetic according to this embodiment is a kind of surfactant, but it is a “pure soap component” that is clearly distinguished from a synthetic surfactant in the household goods quality labeling law, and is different from a synthetic surfactant.

[0034]

In producing the oil-in-water emulsion composition for a creamy cosmetic according to this

embodiment, water is blended in an amount excluding the amounts of other components.

The content of water in the oil-in-water emulsion composition for a creamy cosmetic according to this embodiment can be 60 to 90 wt%, for example, relative to the total amount of the oil-in-water emulsion composition for a creamy cosmetic.

The oil-in-water emulsion composition according to this embodiment may comprise antioxidants, preservatives, thickeners, pH-adjusting agents, chelating agents, ultraviolet light scattering agents, ultraviolet absorbers, inorganic minerals, whitening agents, perfumes, dyes or the like that are commonly used.

[0035]

In the oil-in-water emulsion composition according to this embodiment, a higher alcohol may be contained. As the higher alcohol, hojoba alcohol, hydrogenated jojoba alcohol, lauryl alcohol, cetyl alcohol, stearyl alcohol, behenyl alcohol, myristyl alcohol, oleyl alcohol, cetostearyl alcohol or the like can be given.

As mentioned above, for stabilization of an emulsion composition with a higher alcohol, it is required to contain a relatively large amount of a higher alcohol. Therefore, depending on its composition, feeling in use may be deteriorated (e.g. feeling of being thickly coated or powdery feel). However, by using a higher alcohol together with the fatty acid composition in the oil-in-water emulsion composition for a creamy cosmetic according to this embodiment, significant improvement in stability can be observed by adding a relatively small amount of a higher alcohol, whereby an oil-in-water emulsion composition for a creamy cosmetic having excellent feeling in use and improved stability can be produced.

At this time, the content of a higher alcohol is preferably 0.1 to 1 wt%, more preferably 0.25 to 0.9 wt%, relative to the total amount of the oil-in-water emulsion composition for a creamy cosmetic.

The content of a higher alcohol is preferably less than 1/2 of the content of the fatty acids contained in the oil-in-water emulsion composition for a creamy cosmetic.

EXAMPLES

[0036]

Hereinbelow, a detailed explanation will be given on an experiment or the like conducted for specifying a composition of the fatty acids and the fatty acid alkali salts that is suitable for the oil-in-water emulsion composition for a creamy cosmetic according to this embodiment. The present invention is not limited to the following configuration.

In the following experiments, since fatty acid alkali salts are contained in the oil-in-water emulsion composition by reacting a fatty acid and an alkali in a reaction system, as mentioned above, the ratio of behenic acid, stearic acid and palmitic acid to be blended in the oil-in-water emulsion composition for a creamy cosmetic is the same as the amount ratio of behenic acid, stearic acid and palmitic acid contained in the oil-in-water emulsion composition for a creamy cosmetic and the amount ratio of behenic acid alkali salts, stearic acid alkali salts and palmitic acid alkali salts in the oil-in-water emulsion composition for a creamy cosmetic. The composition is indicated as the ratio of the blended fatty acids.

[0037]

[Experiment 1]

In order to specify a fatty acid composition suitable for the oil-in-water emulsion composition for a creamy cosmetic according to this embodiment, among the three fatty acids, i.e. behenic acid, stearic acid and palmitic acid, for one or two combinations of these fatty acids, an oil-in-water emulsion composition for a creamy cosmetic was produced for each composition ratio, and emulsification stability, viscosity and feeling in use were evaluated.

[0038]

Specifically, in order to specify a range of a preferable blending ratio of the three components of behenic acid, stearic acid and palmitic acid to be blended in the oil-in-water emulsion composition for a creamy cosmetic according to this embodiment, an experiment was conducted for 6 types of fatty acid composition (B1 to B6) shown below.

Hereinbelow, the ratio of each of behenic acid, stearic acid and palmitic acid relative to the total blending amount of behenic acid, stearic acid and palmitic acid to be blended in the oil-in-water emulsion composition for a creamy cosmetic according to this embodiment is indicated as follows: (behenic acid (wt%): stearic acid (wt%): palmitic acid (wt%)).

[0039]

B1 (100:0:0)

B2 (0:100:0)

B3 (0:0:100)

B4 (50:50:0)

B5 (0:50:50)

B6 (50:0:50)

[0040]

Production of the oil-in-water emulsion composition for a creamy cosmetic was conducted as follows:

First, as the oily components, the total blending amount of the fatty acids was 10 wt% relative to the total amount of the oil-in-water emulsion composition for a creamy cosmetic. As for each of B1 to B6, the fatty acid component was added in the above-mentioned ratio. As other oily components, 8 wt% of a liquid oil composed of high-oleic sunflower oil, jojoba oil and olive squalane, 0.12 wt% of a preservative and 0.05 wt% of an anti-oxidant were added. Then, these oily components were mixed.

[0041]

Further, as the water-soluble components, 18 wt% of glycerin and 0.1 wt% of an extract component were added. Further, an aqueous 48% KOH solution was added as the alkali such that the total content of the fatty acid alkali salts became 3.0 wt%. Total of the remainder was allowed to be water, and these water-soluble components were mixed.

[0042]

Subsequently, the oily components were heated to 70°C, and the water-soluble components were heated to 75°C. The oily components were added to the water-soluble components, and the

resultant was homogenously emulsified by means of a vacuum emulsification machine (PVQ-3UN; manufactured by Mizuho Industrial Co., Ltd.). Thereafter, while mixing with stirring, the resulting emulsion composition was cooled to room temperature, whereby an oil-in-water emulsion composition for a creamy cosmetic was obtained.

[0043]

Evaluation of emulsification stability of the oil-in-water emulsion composition for a creamy cosmetic was conducted by the following testing method.

That is, 40g of the oil-in-water emulsion composition for a creamy cosmetic one day after the production thereof was put in the bottom of Lamizip LZ-9 (a stand pack bag equipped with a zipper, manufactured by Seisannipponsha Ltd.). The zipper was closed in a state where the bag was swollen to some extent, and then the bag was sealed by heat sealing. The bag was put in a thermostat chamber of 10°C and was allowed to stand for 3 hours or longer. Subsequently, a lifting table for a rheometer to which a pressurizing rod was fixed was put in the thermostat chamber, and the bag was fixed to the table with a double-sided tape. The table was driven to adjust so that the pressing rod could fully press the cream at the bottom of the bag. Then, by using this pressing machine, pressurizing was conducted for 24 hours (24 times per minute). After completion of the pressurizing, the cream was gathered at the bottom and the bag was turned upside down. In that state, the bag was stored in the thermostat of 10°C until water separation occurred.

[0044]

For the following commercially available cream, evaluation for emulsification stability was conducted by the same method as that mentioned above.

That is, evaluation was conducted for an emulsion composition for a cosmetic (commercially available cream A) in which (stearic acid/malic acid) glyceryl (synthetic surfactant) was used as an emulsifier and an emulsion composition for a cosmetic (commercially available cream B) in which hydrogenated lecithin (naturally occurring surfactant) was used as an emulsifier.

As a result, water was separated from the commercially available cream A 4 days after the start of storage, and the commercially available cream B was suffered from water separation 2 days after the start of storage.

[0045]

The criteria for evaluation of the emulsification stability of the oil-in-water emulsion composition for a creamy cosmetic in the above-mentioned experiment was stipulated as follows based on a period from the day on which the storage started to the day on which occurrence of the water separation was confirmed (a period until water separation occurred in the figures).

・Water separation occurred during pressurizing: Very poor (× in the figures)

・Water separation occurred within 1 to 3 days: Relatively poor (△ in the figures)

・Water separation occurred within 4 to 6 days: Relatively high (○ in the figures)

・Water separation occurred within 7 to 19 days: Very high (◎ in the figures)

・Water separation occurred after the lapse of 20 days or longer: Extremely high (☆ in the figures)

[0046]

Evaluation on the viscosity of the oil-in-water emulsion composition for a creamy cosmetic was

conducted for the cream on the day following the production by measuring the viscosity [mPa·s] by using a viscometer (manufactured by Brookfield Ametek, Inc.) and No. 4 rotor.

[0047]

Evaluation on the feeling in use of the oil-in-water emulsion composition for a creamy cosmetic was conducted by evaluating the feeling in use when applying to skin the cream on the next day after the production thereof in a room of 20°C (room temperature).

Specifically, as for the 4 indices, i.e. compatibility with the skin, wateriness, moist feeling and feeling of being thickly coated, each index was evaluated according to the following 4 criteria.

The comprehensive evaluation was conducted by totaling evaluations of these 4 indices.

(Individual evaluation for each index)

・4: Very good

・3: Relatively good

・2: Relatively poor

・1: Very poor

(Comprehensive evaluation)

・13 or more: Very good (◎ in the figures)

・11, 12: Relatively good (○ in the figures)

・9, 10: Relatively poor (△ in the figures)

・8 or less: Very poor (× in the figures)

[0048]

The results of evaluating emulsification stability, viscosity and feeling in use of the oil-in-water emulsion composition for a creamy cosmetic for fatty acid compositions B1 to B6 and the results of evaluating emulsification stability of commercially available cream A and B are shown in Fig. 1. As for B1 to B3, since water separation occurred immediately after the production, evaluation on feeling in use was not conducted.

[0049]

As shown in Fig. 1, the oil-in-water emulsion compositions for a creamy cosmetic obtained by blending only one component or only two components among behenic acid, stearic acid and palmitic acid (Comparative Examples 1 to 6) had very poor or relatively poor stability.

The commercially available cream A (Comparative Example 7) obtained by using as an emulsifier (stearic acid/malic acid) glyceryl (synthetic surfactant) had relatively high stability. The oil-in-water emulsion for a creamy cosmetic obtained by blending only one component or only two components had poorer stability than that of the commercially available cream A.

The commercially available cream B (Comparative Example 8) obtained by using as an emulsifier hydrogenated lecithin (naturally occurring surfactant) had relatively poor stability.

[0050]

[Experiment 2]

Subsequently, the three components, i.e. behenic acid, stearic acid and palmitic acid, were allowed to have the following further 10 types of fatty acid composition (E1 to E10). An oil-in-water emulsion composition for a creamy cosmetic was produced for each of these compositions, and

evaluation was made on emulsification stability, viscosity and feeling in use. The method for producing the oil-in-water composition for a creamy cosmetic and the method for evaluating emulsification stability, viscosity and feeling in use of this experiment are the same as in Experiment 1.

[0051]

E1 (80:10:10)

E2 (10:80:10)

E3 (10:10:80)

E4 (45:45:10)

E5 (10:45:45)

E6 (45:10:45)

E7 (33:33:33)

E8 (57:22:22)

E9 (22:57:22)

E10 (22:22:57)

[0052]

The results of evaluation on emulsification stability, viscosity and feeling in use of the oil-in-water emulsion composition for a creamy cosmetic for E1 to E10 are shown in Fig. 2.

In Fig. 2, the oil-in-water emulsion compositions for a creamy cosmetic having fatty acid compositions of E7 (33:33:33) (Example 1), E8 (57:22:22) (Example 2) and E9 (22:57:22) (Example 3) have extremely high or very high stability. In addition, feeling in use of these oil-in-water emulsion compositions for a creamy cosmetic is very good or relatively good and has an appropriately viscosity value.

[0053]

[Experiment 3]

In order to specify a preferable blending ratio of the three components, i.e. behenic acid, stearic acid and palmitic acid, to be blended in the oil-in-water emulsion composition for a creamy cosmetic according to this embodiment, as for each of the following 9 types of fatty acid compositions, the oil-in-water emulsion composition for a creamy cosmetic was produced, and evaluation was made on emulsification stability, viscosity and feeling in use. The method for producing the oil-in-water composition for a creamy cosmetic and the method for evaluating emulsification stability, viscosity and feeling in use of this experiment are the same as in Experiment 1.

[0054]

G1 (20:70:10)

G2 (20:60:20)

G3 (20:40:40)

G4 (40:20:40)

G5 (20:50:30)

G6 (20:30:50)

G7 (30:20:50)

G8 (67:17:17)

G9 (60:20:20)

[0055]

The results of evaluating emulsification stability, viscosity and feeling in use of the oil-in-water emulsion composition for a creamy cosmetic of G1 to G9 are shown in Fig. 3.

In Fig. 3, the oil-in-water emulsion composition for a creamy cosmetic having fatty acid compositions of G3 (20:40:40) (Example 4), G4 (40:20:40) (Example 5), G5 (20:50:30) (Example 6), G6 (20:30:50) (Example 7), G7 (30:20:50) (Example 8), G8 (67:17:17) (Example 9) and G9 (60: 20:20) (Example 10) each have extremely high, very high or relatively high stability. In addition, feeling in use of these oil-in-water emulsion compositions for a creamy cosmetic is very good or relatively good and has an appropriate viscosity value.

[0056]

(Specifying a range where stable emulsification is attained)

The composition of the blended fatty acids that has been proven to show excellent emulsification stability and feeling in use by Experiments 1 to 3 is shown in a ternary diagram. As mentioned above, in this experiment, the ratio of the blending fatty acid is the same as the amount ratio of the fatty acid in the oil-in-water emulsion composition for a creamy cosmetic and the amount ratio of the fatty acid alkali salt in the oil-in-water emulsion composition for a creamy cosmetic. The results are shown in Fig. 4.

In the ternary diagram in Fig. 4, (A) indicates behenic acid, (B) indicates stearic acid and (C) indicates palmitic acid, and the right hypotenuse side indicates the wt% of behenic acid, the left hypotenuse side indicates the wt% of stearic acid and the bottom side indicates the wt% of palmitic acid, respectively. By an arbitrary point in the ternary diagram, it is possible to indicate a fatty acid composition that allows the total of the three fatty acids to be 100 wt%.

[0057]

It can be understood that the fatty acid composition that has been proven to exhibit excellent emulsification stability and feeling in use is present in a weight ratio range surrounded by the following 5 points: (A=68,B=17,C=15);(A=28,B=57,C=15);(A=13,B=57,C=30);(A=13,B=37,C=50); and (A=33,B=17,C=50), i.e. in a range of 13 to 68 wt% of behenic acid, 17 to 57 wt% of stearic acid and 15 to 50 wt% of palmitic acid.

[0058]

Many of these compositions are present in a weight ratio range surrounded by the following 5 points: (A=60,B=20,C=20);(A=23,B=57,C=20);(A=20,B=57,C=23);(A=20,B=40,C=40); and (A=40,B=20,C=40); i.e. in a range of 20 to 60 wt% of behenic acid, 20 to 57 wt% of stearic acid and 20 to 40 wt% of palmitic acid.

[0059]

Further, it can be understood that fatty acid compositions that are particularly excellent in emulsification stability are concentrated in a weight ratio range surrounded by the following 4 points: (A=40,B=30,C=30);(A=20,B=50,C=30);(A=20,B=40,C=40); and (A=30,B=30,C=40), i.e. a range of 20 to 40 wt% of behenic acid, 30 to 50 wt% of stearic acid and 30 to 40 wt% of palmitic acid.

As mentioned above, it has been revealed that the oil-in-water emulsion composition for a

creamy cosmetic according to this embodiment exhibits excellent emulsification stability and feeling in use particularly in the above-mentioned composition of the blended fatty acids, i.e. the above-mentioned amount ratio of fatty acids in the oil-in-water emulsion composition for a creamy cosmetic and the above-mentioned amount ratio of a fatty acid alkali salt in the oil-in-water emulsion composition for a creamy cosmetic.

[0060]

[Experiment 4]

An experiment was conducted in order to specify a preferable amount ratio of a fatty acid alkali salt in the oil-in-water emulsion composition for a creamy cosmetic according to this embodiment.

Specifically, oil-in-water emulsion compositions for a creamy cosmetic were produced with the total blended amount of fatty acids in the oil-in-water emulsion composition for a creamy cosmetic being 10 wt%, and with the contents of fatty acid alkali salts being 2.0 wt%, 2.5 wt%, 3.0 wt%, 3.5 wt%, 4.0 wt%, 4.5 wt%, 5.0 wt% and 5.5 wt%, respectively, and with the fatty acid composition being (20:50:30). For each of the emulsions, evaluation was conducted on emulsification stability, viscosity and feeling in use. Other points of the method for producing an oil-in-water emulsion composition for a creamy cosmetic and the method for evaluating emulsification stability, viscosity and feeling in use of this experiment are the same as in Experiment 1. The results are shown in Fig. 5. The oil-in-water emulsion composition for a creamy cosmetic of K3 in Fig. 5 is the same as G5 (Example 6) mentioned above.

[0061]

In Fig. 5, the “blending amount of fatty acids” indicates the total amount of behenic acid, stearic acid and palmitic acid to be blended in the oil-in-water emulsion composition for a creamy cosmetic.

The “fatty acid alkali salt (A)” indicates the total content of potassium behenate, potassium stearate and potassium palmitate contained in the oil-in-water emulsion composition for a creamy cosmetic.

The “fatty acid + fatty acid alkali salt (B)” indicates the total content of fatty acids and fatty acid alkali salts contained in an oil-in-water emulsion composition for a creamy cosmetic and corresponds to the total blending amount of fatty acids to be blended and alkalis to be blended.

The “soap component ratio (A/B)” indicates a ratio of the total content of fatty acid alkali salts relative to the total content of fatty acids and fatty acid alkali salts contained in an oil-in-water emulsion composition for a creamy cosmetic.

Same definitions are applied to Figs. 6 and 7 mentioned later.

[0062]

As shown in Fig. 5, the oil-in-water emulsion composition for a creamy cosmetic (Comparative Example 18) containing 2.0 wt% of fatty acid alkali salts and 19.4 wt% of soap component ratio had an appropriate viscosity value and exhibited relatively good feeling in use, but showed very poor stability.

On the other hand, the oil-in-water emulsion composition for a creamy cosmetic containing 2.5 to 4.5 wt% of fatty acid alkali salts and 24.0 to 41.9 wt% of soap component ratios (Examples, 11, 7 and 12 to 14) had an appropriate viscosity value, exhibited very good or relatively good feeling in use, and

showed extremely high or very high stability.

The oil-in-water emulsion composition for a creamy cosmetic containing 5.0 to 5.5 wt% of fatty acid alkali salts and 46.2 to 50.4 wt% of soap component ratios (Comparative Examples 19 and 20) had an appropriate viscosity value, exhibited very good or relatively good feeling in use, but showed very poor or relatively poor stability.

[0063]

Therefore, it has been revealed that, in the oil-in-water emulsion composition for a creamy cosmetic according to this embodiment, it is preferred that fatty acid alkali salts be contained in an amount of 20 to 45 wt% relative to the total content of fatty acids and fatty acid alkali salts contained in the oil-in-water emulsion composition for a creamy cosmetic.

[0064]

[Experiment 5]

An experiment was conducted to specify a preferable total content of fatty acids and fatty acid alkali salts contained in the oil-in-water emulsion composition according to this embodiment.

Specifically, for each of the cases where the blending amounts of fatty acids are 2 wt%, 4 wt%, 8 wt%, 12 wt% and 16 wt% in an oil-in-water emulsion composition for a creamy cosmetic, oil-in-water emulsion compositions for a creamy cosmetic were produced with the soap component ratio being 28.6 wt% and with the fatty acid composition being (33:33:33). For each of the emulsions, evaluation was conducted on the emulsification stability, viscosity and feeling in use. Other points of the method for producing an oil-in-water emulsion composition for a creamy cosmetic and the method for evaluating emulsification stability, viscosity and feeling in use of this experiment are the same as in Experiment 1. The results are shown in Fig. 6.

[0065]

As shown in Fig. 6, the oil-in-water emulsion composition for a creamy cosmetic having a total content of fatty acids and fatty acid alkali salts of 2.1 wt% showed very good feeling in use, but had extremely low viscosity and very poor stability (Comparative Example 21).

On the other hand, the oil-in-water emulsion composition for a creamy cosmetic having a total content of fatty acids and fatty acid alkali salts of 4.2 to 12.6 wt% had an appropriate viscosity value, exhibited relatively good feeling in use and extremely high or very high stability (Examples 15 to 17).

Further, the oil-in-water emulsion composition for a creamy cosmetic having a total content of fatty acids and fatty acid alkali salts of 16.8 wt% exhibited extremely high stability but had extremely high viscosity and relatively poor feeling in use (Comparative Example 22).

Therefore, it has been revealed that, in the oil-in-water emulsion composition for a creamy cosmetic according to this embodiment, it is preferred that the total content of fatty acids and fatty acid alkali salts contained in the oil-in-water emulsion for a creamy cosmetic composition be 3 to 15 wt%.

[0066]

[Experiment 6]

An experiment was conducted to examine the effect of combined use of a higher alcohol in the oil-in-water emulsion composition for a creamy cosmetic according to this embodiment on emulsification stability, viscosity and feeling in use.

Specifically, oil-in-water emulsion compositions for a creamy cosmetic were produced with the blending amount of the fatty acids in the oil-in-water emulsion composition for a creamy cosmetic being 10 wt%, with the soap component ratio being 28.6 wt%, with the fatty acid composition being (33:33:33) and with the content of behenyl alcohol being 0.25 wt%, 0.5 wt% and 0.75 wt%. At this time, the amount of water contained in the oil-in-water emulsion composition for a creamy cosmetic was reduced by an amount corresponding to the content of behenyl alcohol. Other points of the method for producing an oil-in-water emulsion composition for a creamy cosmetic are the same as in experiment 1.

Evaluation was conducted on the emulsification stability, viscosity and feeling in use on each of the oil-in-water emulsion compositions for a creamy cosmetic. The method for evaluating the emulsification stability, viscosity and feeling in use is the same as that in Experiment 1. The results are shown in Fig. 7. The oil-in-water emulsion composition for a creamy cosmetic of P1 in Fig. 7 is the same as E7 (Example 1) mentioned above.

[0067]

As shown in Fig. 7, each of oil-in-water emulsion compositions for a creamy cosmetic produced by containing behenyl alcohol had extremely high stability, exhibited very good or relatively good feeling in use, and had an appropriate value of viscosity (Examples 18 to 20).

[0068]

[Experiment 7]

An experiment was conducted in order to confirm a preferable combination of types of blended fatty acids in the oil-in-water emulsion composition for a creamy cosmetic according to this embodiment.

Specifically, oil-in-water emulsion compositions for a creamy cosmetic were produced with the total blending amount of fatty acids being 10 wt%, with the soap component ratio being 28.6 wt% and with the fatty acid compositions (behenic acid: stearic acid: palmitic acid) being (33:33:33), (behenic acid: palmitic acid: oleic acid) being (33:33:33) and (behenic acid: stearic acid: myristic acid) being (33:33:33) in the oil-in-water emulsion composition for a creamy cosmetic. For each of the oil-in-water emulsion compositions for a creamy cosmetic, evaluation was conducted on emulsification stability, viscosity and feeling in use. Other points of the method for producing an oil-in-water emulsion composition for a creamy cosmetic and the method for evaluating emulsification stability, viscosity and feeling in use of this experiment are the same as in Experiment 1. The results are shown in Fig. 8. The oil-in-water emulsion composition for a creamy cosmetic of R1 in Fig. 8 is the same as E7 (Example 1) mentioned above.

[0069]

In Fig. 8, the “amount of blended fatty acids” indicates the total blending amount of behenic acid, stearic acid, palmitic acid, oleic acid and myristic acid blended in the oil-in-water emulsion composition for a creamy cosmetic.

The “fatty acid alkali salt (A)” indicates the total content of potassium behenate, potassium stearate, potassium palmitate, potassium oleate and potassium myristate contained in the oil-in-water emulsion composition for a creamy cosmetic.

The “fatty acid + fatty acid alkali salt (B)” and the “soap component ratio (A/B)” are as defined in Experiment 4.

[0070]

As shown in Fig. 8, when the fatty acid composition was (behenic acid: stearic acid: palmitic acid) = (33:33:33), the composition had an appropriate viscosity value, exhibited very good feeling in use and exhibited very high stability (Example 1).

On the other hand, when the fatty acid composition was (behenic acid: palmitic acid: oleic acid) = (33:33:33), the composition had an appropriate viscosity value and exhibited very good feeling in use, but showed very poor stability (Comparative Example 22). Further, when the fatty acid composition was (behenic acid: palmitic acid: myristic acid) = (33:33:33), the composition had an appropriate viscosity and exhibited relatively good feeling in use, but showed relatively poor stability (Comparative Example 23).

Accordingly, it can be confirmed that, as for the combination of blended fatty acids in the oil-in-water emulsion composition for a creamy cosmetic, (behenic acid: stearic acid: palmtic acid) is preferable.

[0071]

Preferred embodiments and examples of the oil-in-water emulsion composition for a creamy cosmetic of the present invention have been explained hereinabove. The oil-in-water emulsion composition for a creamy cosmetic of the present invention is not limited to these embodiments and examples, and it is needless to say various modifications are possible within the scope of the present invention.

As such appropriate modifications, incorporation of other liquid oils than those used in the examples can be given, for example.

Industrial Applicability

[0072]

The present invention can be preferably used when an emulsion composition for a cosmetic is produced without incorporating a synthetic surfactant.

CLAIMS

1. An oil-in-water emulsion composition for a creamy cosmetic containing water, oily components, fatty acids and fatty acid alkali salts and having a viscosity of 2,000 to 90,000 mPa・s,

the oil-in-water emulsion composition for a creamy cosmetic substantially comprising no synthetic surfactant in the entire composition,

behenic acid, stearic acid and palmitic acid being contained as the fatty acid and the total content of the fatty acids and the fatty acid alkali salts being 3 to 15 wt%,

the weight ratio of the behenic acid/the stearic acid/the palmitic acid in the fatty acids being 13 to 68/17 to 57/15 to 50, and

the weight ratio of the behenic acid alkali salt/the stearic acid alkali salt/the palmitic acid alkali salt in the fatty acid alkali salts being 13 to 68/17 to 57/15 to 50.

2. The oil-in-water emulsion composition for a creamy cosmetic according to claim 1, comprising the fatty acid alkali salts in an amount of 20 to 45 wt% relative to the total content of the fatty acids and the fatty acid alkali salts contained in the oil-in-water emulsion composition for a creamy cosmetic.

3. The oil-in-water emulsion composition for a creamy cosmetic according to claim 1 or 2, comprising a higher alchol in an amount of 0,1 to 1 wt% in the entire emulsion composition for a creamy cosmetic.

4. The oil-in-water emulsion composition for a creamy cosmetic according to claim 3, wherein the weight ratio of the higher alcohol/the fatty acids contained in the oil-in-water emulsion composition for a creamy cosmetic is less than 1/2.

5. The oil-in-water emulsion composition for a creamy cosmetic according to any one of claims 1 to 4, comprising oily components excluding behenic acid, stearic acid and palmitic acid in an amount of 2 to 14 wt% in the entire emulsion composition for a creamy cosmetic.

6. The oil-in-water emulsion composition for a creamy cosmetic according to any one of claims 1 to 5, comprising only behenic acid, stearic acid and palmitic acid as the fatty acids.

7. A cosmetic comprising the oil-in-water emulsion composition for a creamy cosmetic according to any one of claims 1 to 6.