

TECHNICAL FILED OF THE INVENTION:

The present invention relates to an edible cosmetic composition which provides moisturizing, softening, soothing, skin whitening, anti-acne, anti-aging and antioxidant properties to the skin. The invention also relates to the process for preparation of said edible composition.

BACKGROUND OF THE INVENTION:

Generally all cosmetic products are prepared using synthetic chemicals which are harmful to skin. These cosmetic products if unintentionally goes into mouth have to be rinsed immediately because of the toxicity and allergy criteria's. Similarly in spa's and beauty-parlors where facial massage is done by creams and gels there are chances of these products entering the oral cavity. Therefore, to circumvent these problems the research community looked at providing edible cosmetic compositions. Accordingly, there is ample literature available on edible cosmetic compositions as mentioned below.

Korean Patent Publication No. 20020097070 discloses an edible cosmetic composition containing natural antioxidant including an extract of grape seed, pomegranate, silk peptide and beta-carotene which sufficiently exerts an inhibition effect on skin aging through an oral absorption method.

Japanese Patent Publication No. 2011093833 provides an edible skin protective cosmetic such as hand cream etc., which include 0.60-1.20 wt.% of (iota) type carrageenan, 0.50-2.00 wt.% of a polyglycerol fatty acid ester that has an HLB value of ≥ 12 and 8.0-20.0 wt.% of a vegetable edible oil and/or an oily component.

Korean Patent Publication No. 20030000798 discloses a process for preparing an edible cosmetic composition by mixing 1 to 2% of organic germanium and selenium with 30 to 40% of rice flour to obtain a powder mixture. The mixture is agitated with 5% of honey syrup and purified water as a solvent, optionally 5% of ginseng or *Lycii radidis* Cortex.

Korean Patent Publication No. 20110105884 discloses a cosmetic product and a method for manufacturing the same to ensure whitening, anti-wrinkling, and anti-aging; wherein said composition contains water, *Aurantioinobilis pericarpium*, cactus, pumpkin, bean sprout, walnut, spinach, *Houttuyni acordata*, *Saururus herba*, brown seaweed, persimmon leaves, orange, grapefruit, jellyfish, raw chestnut, watermelon, Citrus junos, fistula, carp, *Zanthoxylum piperitum* DC, jujube, octopus, acorn, bamboo salt, and *Salicornia herbacea*.

US Patent Publication No. 20100215762 relates to the provision of an edible composition for the treatment of cutaneous signs of ageing, comprising: (a) 2 to 1000 mg anthocyanidin and derivatives thereof; and (b) 1 to 20 mg lutein and derivatives thereof; wherein the weight ratio of anthocyanidin to lutein is at least 1:1, preferably at least 10:1 and more preferably at least 25:1, even more preferably at least 50:1, most preferably at least 100:1; wherein the composition excludes copper in the form of separately or in combination copper gluconate and copper oxide; and further excludes separately or in combination with the copper exclusion *Nandina domestica* or an extract thereof.

US Patent Publication No. 20060222608 relates to polysaccharide isolated from a hot water extract of edible *Tremella* mushroom without adding a chemical reagent, having effects of retaining skin moisture and inhibiting melanin formation.

In the light of the prior art, there exists a need in the art to provide an edible cosmetic composition with safe and cost effective ingredients that can be manufactured by a simple method.

Accordingly, the objective of the invention is to provide cost-effective edible cosmetic composition that can be prepared by a simple manufacturing method which is easier to scale at industrial level.

The composition of the present invention is stable and cost-effective as it uses easily available edible food grade ingredients which make the composition affordable and safe for the skin and the body.

SUMMARY OF THE INVENTION:

The present invention provides an edible cosmetic composition comprising edible grade emulsifying system, natural humectants, viscosity enhancer, emollient, edible preservatives, antioxidants and dried fruits, which provides moisturizing, softening, soothing, skin whitening, anti-acne, anti-aging and antioxidant properties to the skin.

The edible composition of the present invention finds application in the treatment of acne, pimples or plumping of skin, mattifying oily skin, improving the elasticity of skin, reducing wrinkles, dryness of skin, pigmentation and sagging of the skin, pore size reduction, breakdown of cellulite, inhibition of melanin synthesis, and brightening/lightening of skin.

The invention further describes the process for preparation of said edible cosmetic composition.

The edible composition of the present invention can be formulated in the form of liquid, cream, gel, lotion, powder, spray (vapors and gas) and mousse.

DETAIL DESCRIPTION OF THE INVENTION:

The invention will now be described in detail in connection with certain preferred and optional embodiments, so that various aspects thereof may be more fully understood and appreciated.

The present invention discloses an edible cosmetic composition which provides moisturizing, softening, soothing, skin whitening, anti-acne, anti-aging and antioxidant properties to the skin.

The edible cosmetic composition of the present invention comprises portions or extract of easily available edible food grade ingredients which is used in the instant edible cosmetic compositions in unrecognizable and in physically inseparable form.

Accordingly, in one preferred embodiment, the present invention disclose an edible cosmetic composition comprising 1 to 10% edible grade emulsifying agent, 1 to 3% natural humectants, 1 to 5% viscosity enhancer, 1 to 5 % emollient, 0.1 to 0.5% edible preservative system, 0.1 to 0.3% antioxidants and 5 to 15 % dried fruits, that moisturizes, softens and soothes the skin.

The edible grade emulsifying agent is selected from Glycerol monostearate (GMS), xanthan gum, beeswax, Candelilla Wax, Coco butter, kokum butter, lecithin from sunflower, cocoglucosides and such like. The Coco butter, kokum butter is used as co-emulsifier in the instant composition.

The humectants are ingredients which can hold moisture in system as well as provide moisturization to skin on application and are selected from natural humectant such as maple syrup, liquid glucose, edible glycerin, borage oil, castor oil and such like.

The coco-butter and kokum butter also act as a viscosity enhancer. They help to provide desired viscosity to the composition. They are also good natural emollients which help in moisturizing, skin whitening and has sun protectant properties.

The emollients used in the present invention are selected from oils such as coconut oil, sesame oil, olive oil, groundnut oil and rice bran oil.

Since the present invention uses natural food grade ingredient there are more chances that the composition may get contaminated by bacteria and fungus. In order to prevent microbial infection food grade preservatives are used. Accordingly, the preservatives are selected from potassium sorbate (edible), sodium benzoate (edible), EDTA, paraben and such like either alone or in combination thereof. The combination of potassium sorbate (edible) and sodium benzoate (edible) is a preferable preservatives system.

The anti-oxidants used in the present invention are selected from Butylated hydroxytoluene (BHT) and Butylated hydroxyanisole (BHA).

The fruits are rich sources of alpha hydroxy acids (AHA's) and beta hydroxyacids (BHA's). They also have large amount of flavonoids, sugars, glycosides, fruit acids, pectin etc. They help in providing antioxidant, moisturizing, rejuvenating and skin whitening properties. In the present composition pre-dried fruits are used which includes blueberry, apple, pear, peach, kiwi, pineapple and mango.

The edible cosmetic composition of the present invention in the form of emulsion is prepared by mixing oil phase and water phase together and stabilizing it by using an emulsifying agent -Glycerol monostearate (GMS) (Edible grade); wherein said oil phase comprises of Sesame oil, coconut oil, Coco butter, kokum butter, Glyceryl monostearate, BHT, BHA and said water phase comprises of Glycerine, Maple Syrup, preservatives and water.

To prepare the cosmetic composition of the present invention, emulsifying system is essential which hold the two immiscible phases (oil phase and water phase) together. There are many synthetic and natural emulsifying agent which forms emulsion, but in order to prepare the Edible Grade emulsion, a co-emulsifying system is also used. The edible grade emulsifying system of the present invention comprises of Glycerol monostearate (GMS) (Edible grade) as main emulsifier and coco butter & kokum butter as co-emulsifier.

In another embodiment, the present invention discloses an edible cosmetic composition suitably formulated for the treatment of acne, pimples or plumping of skin by incorporating an edible active ingredient selected from the extracts of Cinnamon (*Cinnamomum aromaticum*) bark, Amla (*Emblica officinalis*) or Black pepper (*Piper nigrum*) into the edible cosmetic composition; wherein said active(s) is present in an amount of 0.05 to 12 %.

Cinnamon bark has three major properties that make it useful in acne treatment. These are its antibacterial, anti-inflammatory and antioxidant effects. Cinnamon works to kill acne-causing bacteria by drying out the affected area and bringing blood and oxygen to the surface of skin to open the pores and remove bacteria and oil. It also helps to plump and firm the skin.

Amla helps to clear the pimple and acne. It provides nourishment to skin thereby assisting with dullness of skin. It has cooling astringent properties. It acts as an astringent and tones the skin.

Black pepper has an anti-oxidant property. It protects the skin from ultraviolet rays. It acts against the pimples and provide glowing face.

In another embodiment, the present invention discloses an edible cosmetic composition suitably formulated for indications such as mattifying oily skin, improving the elasticity of skin, reducing wrinkles dryness of skin, pigmentation, skin whitening and sagging or pore size reduction of the skin by incorporating an edible active ingredient selected from extracts of orange peel or turmeric (*Curcuma longa*) or *Glycyrrhiza glabra* (licorice or jethimadh) into the edible cosmetic composition; wherein said active(s) is present in an amount of 0.05 to 12 %.

Orange peels helps in naturally cleansing the face. It is beneficial antioxidant that helps in preventing the skin from premature aging and wrinkling. Orange peel also acts as lubricants which give the skin a soft and smooth appearance. This is a very versatile ingredient used as an astringent which helps to prevent skin fragility and perks up skin tone.

Turmeric is known for its anti-inflammatory, anti-oxidant and antimicrobial properties. It is use in cosmetics as an excellent exfoliating agent and skin whitener which can help to defeat the signs of ageing.

Licorice reduces hyperpigmentation by temporarily blocking the actions of tyrosinase, an enzyme responsible for the skin's pigmentation process.

In yet another embodiment, the present invention discloses an edible cosmetic composition suitably formulated for treating conditions such as inhibition of melanin synthesis or brightening/lightening of skin by incorporating extracts of Clove (*Syzygium aromaticum*) in an amount of 0.05 to 12 %.

Clove is a potential anti-aging substance which prevents aging of skin via oxidative processes and inducing collagen synthesis. It has antityrosinase activity, providing a skin whitening effect.

In a further another embodiment, the present invention discloses an edible cosmetic composition suitably formulated for breakdown of cellulite in skin by incorporating an edible active ingredient selected from extracts of Ginger (*Zingiber officinale*) or edible algae (edible seaweed) into the edible cosmetic composition in an amount of 0.05 to 12 %.

Ginger helps to reduce the cellulite because it encourages the transportation of oxygen around the body. Oxygen is essential to getting rid of cellulite because it allows all cells to function effectively and efficiently. If the cells do not get enough oxygen then they become sluggish and can easily be degraded over time, which may actually cause cellulite. Ginger can help all cells to get the right amount of oxygen to burn fat and remove toxins.

Seaweeds contain iodine and other minerals which help to stimulate metabolism, raise body temperature and have an impact on transport of nutrients between cells. Seaweed improves skin texture and regulates the hormones related to energy production and fat metabolism.

The safe and cost-effective edible cosmetic composition is prepared by a simple manufacturing process which is easier to scale at industrial level.

In another preferred embodiment, the present invention provides a process for preparation of an edible cosmetic composition comprising the steps of,

- a) Weighing ingredients of oil phase accurately and keep them in a container;
- b) weighing ingredients of water phase accurately and keep them in separate container;
- c) heating both the containers of step (a) and step (b) till temperature reaches 75°C;
- d) mixing oil phase into water phase followed by stirring till it gets cool;
- e) adding pre-soaked fruits in water into emulsion and mixing the emulsion and

f) keeping the emulsion for 12 hrs. to gain viscosity.

The emulsion obtained by the above process is in the form of liquid, cream, gel, lotion, powder, spray (vapors and gas) and mousse having viscosity in the range of 45000 cps to 60000 cps.

The following example, which includes preferred embodiments, will serve to illustrate the practice of this invention, it being understood that the particulars shown are by way of example and for purpose of illustrative discussion of preferred embodiments of the invention.

Example 1: Composition

	Ingredient	Percentage	Role of Ingredient
Oil Phase	Glycerol monostearate(GMS) – Edible grade	7%	Emulsifying agent
	Seasam oil	4%	To give shine to the product it also for oil layer on sin on application.
	Coconut oil	1%	To give shine to the product it also for oil layer on skin on application.
	Coco butter	4%	Thickening agent as well as co- emulsifier
	Kokum butter	2.53%	Thickening agent as well as co- emulsifier
	Butylated hydroxytoluene (BHT), Butylated hydroxyanisole (BHA)	0.1-0.3%	Antioxidant
Water Phase	Maple syrup/Glycerine	2%	Natural edible humectants as well as Sweetening agent
	Sodium Benzoate Edible	0.4%	Preservative
	Potassium sorbet	0.3%	Preservative
	Water	QS	

	Fruit	10%	Flavor, taste, antioxidants, skin moisturizing, skin softening
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Process for preparation of composition:

- Weighing ingredients of oil phase accurately and keep them in a container;
- weighing ingredients of water phase accurately and keep them in separate container;
- heating both the containers of step (a) and step (b) till temperature reaches 75°C;
- mixing oil phase into water phase followed by stirring till it gets cool;
- adding pre-soaked fruits in water into emulsion and mixing the emulsion and
- keeping the emulsion for 12 hrs. to gain viscosity.

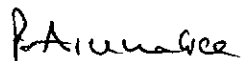
Stability Testing:

- Microbial Activity Testing – The composition of example 1 remains free from microbial contamination for more than two months.
- Temperature Stability Testing – The composition of example 1 found to be stable at 49° C, room temperature and 5° C for more than two months.

Sensory Evaluation:

Attributes	Observations
Texture	Glossy, shiny, creamy,
Peak formation	Good peak formation
Adsorption	Good adsorption, slight oily layer form on skin
Absorption	Good Absorption, Moisture retention,
Ability to spread on skin	Easily gets spread on skin
Effect after application	Non sticky, non-tacky

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Dr. P. Aruna Sree
 (Regn.No.: IN/PA 998)
 Agent for the Applicant
 Gopakumar Nair Associates