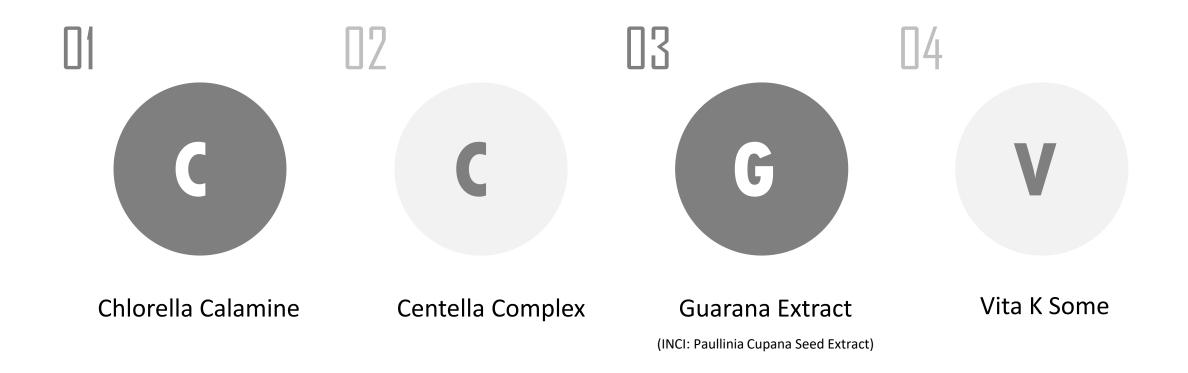


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Calamine Definition

- It is a light red powder made of mixing zinc (zinc oxide, 99.5%) and iron oxide (0.5%). It is used as a soothing lotion or ointment in the medical field.
- Green Calamine is a type of Calamine obtained by mixing Chlorella extract with Calamine.
- Calamine originated from the Latin 'Calamina' means 'Cadmus earth'.

Calamine History

- In the 19th century, western medicine used Calamine in the form of liquid suspension as a soothing, antipruritic and astringent lotion for mosquito bites, as well as lacquer dermatitis and eczema.
- It is called "Lu Gan Shi" in China, and it is also recorded in the literature of the Song Dynasty (960~1279)
 and has a long history.
- After many decades since the middle of the 19th century, it is used as targeted area treatment agent for various skin irritation (lacquer dermatitis, itching, etc.) according to family experiences.

Calamine Efficacy & Impact

- While cooling the skin, it absorbs secretions to dry the skin surface and has an anti-inflammatory effect on acute inflammation after sun exposure.
- Itching inhibitor that relieves symptoms of insect bites, tingling, chickenpox, lacquer dermatitis, rashes, eczema, burns, etc.
- A mild disinfectant that can prevent infection caused by scratching.
- On September 2, 2008, the U.S. FDA reported that "the application of the general drug Calamine to targeted skin are is encouraged, it relieves itching caused by poisonous plants such as cashews."

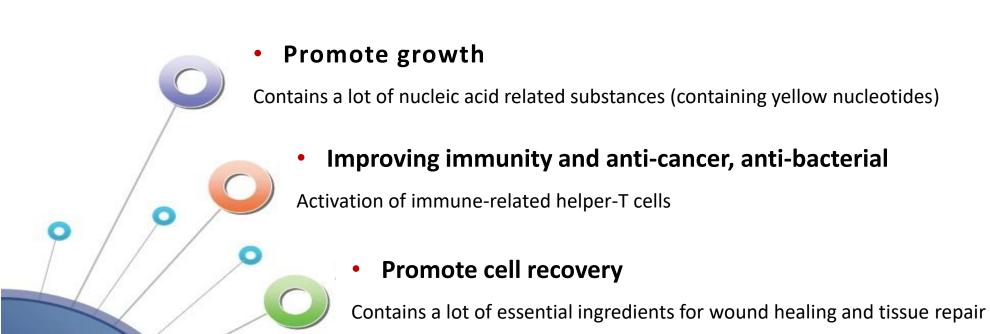


What Is "Chlorella Extract"?

- Chlorella is an organism that appeared on the earth after photosynthetic bacteria in the Precambrian period two hundred million years ago. It is the first plant with eukaryotic cells.
- Chlorella is a compound word. It is a combination of the Greek word chlorella which means "green" and the Latin word ELLA which means "very small things". Chlorella has 10 times more chlorophyll than other plants, and it is propagated by 4 divisions. It's a green algae a single-celled plant with strong plant fecundity.
- Chlorella extract is an extract of Chlorella after heating, which is concentrated or dried by removing the insoluble substance of chlorella. It contains amino acids, proteins, peptides, carbohydrates, vitamins, minerals and nucleic acid substances. Among all these, nucleic acid substances are said to be the main components of the growth factor of chlorella.



Chlorella Extract Efficacy & Impact



Improve liver function

Provide stem cell nutrients and promote the synthesis of phytochrome



Chlorella Calamine Manufacturing Process



Extraction of Chlorella with heating

Dry Chlorella Extract

Chlorella extract + Calamine reaction

Sterilize after being crushed

Quality inspection (Q.C) after packaging

Chlorella Calamine Efficacy & Impact

- It relieves itching & skin irritation.
- When applied to the skin, it will have a cooling effect when it evaporates which can divert your attention from itching phenomenon. It helps relieve sunburn.
- It can relieve or alleviate various symptoms but cannot cure these symptoms thoroughly.



Centella Complex

1. Centella Definition 3.Centella ComplexEfficacy & impact

2.
Centella Complex
Ingredients



Centella Definition

- When a tiger is injured, it rubs the wound on the Centella asiat ica to promote healing. Therefore it is also called "tiger grass".
- From ancient times to the present, it has been used as a traditional medicinal material to treat various skin diseases in India and Asia.
- The main ingredient of the plant-based wound healing agent " Madecassol" is Centella Asiatica.
- Centella Asiatica contains madecassoside, asiaticoside, asiatic acid, and madecassic acid.
- Has excellent soothing effect on irritated skin and healing wounds

ICID: Centella Asiatica Extract

Name used in China: CENTELLA ASIATICA EXTRACT





Centella Complex Ingredients

Madecassoside

- -ICID:Madecassoside
- -Name used in China:

Madecassoside

-Centella Asiatica extract has a skin regeneration effect and high stability -Can manage subtle skin damage of dry skin

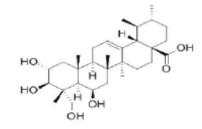
- Asiaticoside
- -ICID:Asiaticoside
- Name used in China:

Asiaticoside

-One of the ingredients extracted from Centella Asiatica, helps increase skin's self-vitality, improve elasticity, and make skin smooth

- Madecassic acid
- -ICID:Madecassic acid
- Name used in China:

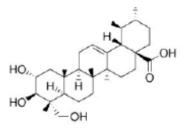
Madecassic acid



-One of the ingredients extracted from Centella Asiatica, helps prevent skin damage and repair damage

- Asiatic acid
- -ICID: Asiatic acid
- -Name used in China:

Asiatic acid

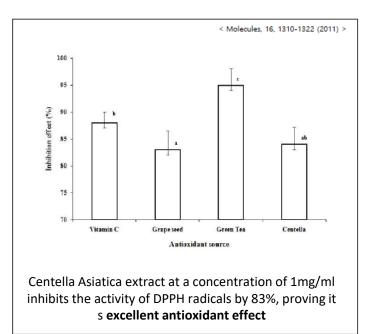


One of the ingredients extracted from Centella Asiatica, helps strengthen skin's moisturizing film, skin barrier, and protect the skin



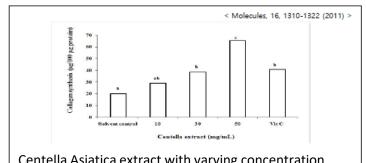
Centella Complex Efficacy & Impact

Antioxidant effect Inhibit cell damage caused by oxidation & prevent skin aging



Anti-wrinkle effect

Promote the synthesis of collagen - the protein - responsible for skin elasticity, thereby inhibitin g wrinkles, cell damage caused by oxidation, and preventing skin aging



Centella Asiatica extract with varying concentration has the effect of promoting collagen synthesis, confirming its effect of inhibiting wrinkle formation

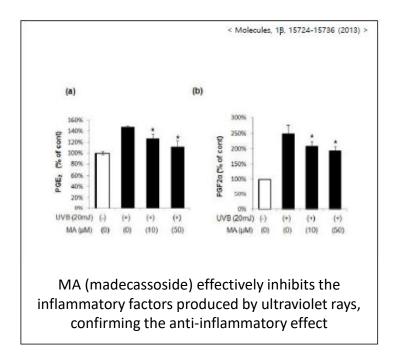
			< Planta Med, 60(2), 133-135 (1994)					
Collageni ng/10000 fibroblasts /48 hours	medium+ DNSO	1) madecassic acid 4.5 µg/ml	(2) asiatic acid 4.5 µg/ml	(3) asiaticoside 6 µg/ml	mixture (1)+(2)+(3)			
Secreted Cell associated	470 ± 97 183 ± 43	1362 ± 82 (S) 158 ± 29 (NS)	1597 ± 199 (S) 150 ± 19 (NS)	1557 ± 245 (S) 140 ± 37 (S)	1769 ± 145(S) 133 ± 30(S)			

Three terpenoids present in Centella Asiatica compounds and their mixtures can promote the increase of type 1 collagen, confirming the effect of improving wrinkles



Centella Complex Efficacy & Impact

Anti-inflammatory effect Inhibit inflammatory cytokine to keep clean



Healing effect Helps the regeneration of damaged skin throu gh the proliferation activity of HDF (Human D ermal Fibroblast)

Fibroblast proliferation(%)	Treatment													
	Asiaticosil e						Re tinoic acid							
	$\overline{}$	II	III	IV	7	VI	- ,		II	Ш	IA	V	VΙ	,
24 hours	149.45	150.00	71.73	163.04	137.50	127.72	0.237	144,02	30.43	93.48	132.06	154.34	135.32	0.027
48 hours	13937	150.00	71.74	108.69	137.50	127.72	0.285	144,02	30.43	93.48	132.06	102.89	135.32	0.025
Type I collagen synthesis (µg/mL)														
24 hours	0.935	0.930	0.930				0.465	0.915	0.940	0.940				0.465
48 hours	0.940	0.940	0.935				0.465	0.940	0.940	0.935				0.465
Type III collagen synthesis (µg/mL)														
14 hours	0.367	0.443	0.406				0.465	0.389	0.341	0.376				0.465
48 hours	0.527	0.517	0.497				0.465	0.622	0.479	0.418				0.465
Test compor V:5.0;VI:1 Test compor	0.0												2.50;	



Guarana Extract

(INCI: Paullinia Cupana Seed Extract)

1.
Guarana Definition

3.
Paullinia Cupana Seed Extract
Efficacy & Impact

2

Guarana's Pharmacological Effects & Effective Properties

What is Guarana?

- Guarana is a plant that grows in the special climate and soil of the Brazilian Amazon forest jungle. The tree can
 be up to 10 meters high, with soft bark, covered with hair, and large and fragrant flowers. The tree has a soft
 and straight stem, 5 oval-shaped leaves, short-stemmed flowers, grape-sized fruits and 1 to 2 Aesculus seeds.
 This seed is ground into a 100% natural food-Guarana powder.
- Guarana fruit contains three times more caffeine than coffee, and tannins give it a bitter taste. It also contains saponins, starch, gum, volatile oils, and bitter green non-volatile oils. Guaranine, one of the active ingredients of guarana, is known to be the same ingredient as caffeine. The seeds contain about 3~5% of guaranine, about 0.25% of theophylline, and about 0.02~0.06% of theobromine.

Guarana's Pharmacological Effects & Effective Properties

Beneficial for brain activity

The natural caffeine contained in guarana is good food for activities such as studying beca use it has the effect of activating the function of brain cells and aids in the ability to recog nize something.

Helps relieve stress

Guarana contains caffeine. When consumed an appropriate amount, it gives a pleasant m ood, eliminates harmful toxins from the human body, and helps relieve stress. But Guaran a contains large amount of caffeine, thus excessive intake might be harmful to the body.

Help prevent & treat vascular diseases

Guarana has the effect of promoting the production of HDL (High Density Lipoprotein) in the liver. HDL can eliminate harmful cholesterol, purify the arteries, thereby promoting blood circulation and effectively preventing vascular diseases.

Help prevent amnesia

The substance of HDL has the effect of controlling the production of biochemical protein MRO, and MRO is involved in human aging which can cause amnesia, concentration disorder, etc.



Paullinia Cupana Seed Extract Efficacy & Impact



Prevent wrinkles
Prevent aging
Promote blood circulation
Promote metabolism
Remove waste
Skin elasticity
Antibacterial



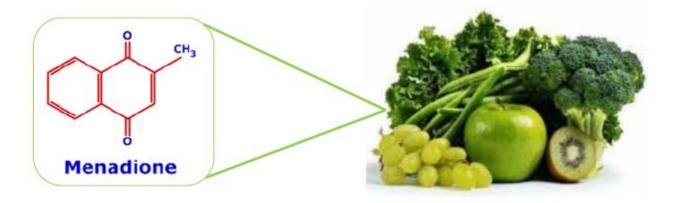
Vitamin KDefinition

3. Vita-K-Some Definition

Vitamin KEfficacy & Impact

Vitamin K Definition

- Vitamin K is a fat-soluble vitamin necessary for proper blood coagulation.
- It is mostly found in green vegetables with leaves such as broccoli, spinach, and curly kale.
- Helps strengthen the capillary wall and **promote blood circulation**. When it is **lacking**, **congestive skin that with obvious capillaries** is easily formed.





Vitamin K Efficacy & Impact

- It is suitable for skin that is thin and shows internal skin texture which cause sensitive & hot skin.
- Reduces dark circles under the eyes and facial flushing disorders.
- Main effects: shrink & strengthen capillary function, remove skin congestion and bruises, promote blood circulation, increase oxygen supply.
- Uses: improve telangiectasia, congestive skin, sensitive skin.

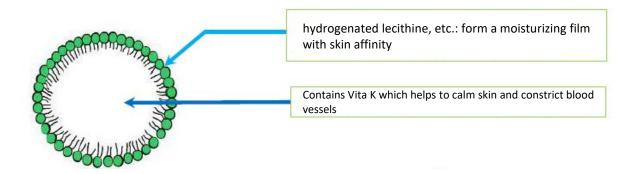






Vita-K-Some Definition

- Contains vitamin K that reduces and strengthens capillaries.
- Most are composed of amphipathic compounds of natural origin that can be dispersed in water.
- Monolayer of Vita-K-Some is composed of one or more compounds that can soften Membrane (cell membrane) in the best form.



THANK YOU