



Personal Care
Active ingredient
KIGAFIRM extract

With the best connections



**STOCKMEIER
GROUP**

KIGAFIRM – Natural skin firming from the heart of Africa

Nature has been an important source of medicinal active ingredients for many thousands of years. An impressive number of modern medicines were isolated from natural sources.

Many of these medicines are based on the active ingredients used in traditional medicine. This plant-based system has roots in traditional medicine but still plays an important role in healthcare for more than 80% of the world's population, who rely on it for their primary medical care.

KIGAFIRM is a high-grade extract from the fruit of the *Kigelia Africana* tree, which is a widespread, highly regarded healing plant in Africa. Originally native to western Africa, it now grows all over the continent. The fruit's appearance is strongly similar to that of a liver sausage, which is why the species is known as the "sausage tree".

For KIGAFIRM, only the fruit is used. The fruit is harvested in a period of 5-6 months during Africa's autumn-winter cycle (April-September). Neither the roots nor the bark of the *Kigelia Africana* tree are used in order to protect resources. Wild harvesting is used.

In traditional African medicine, the dried fruits are crushed and used as an emollient to make the skin soft, to treat eczema and psoriasis, and to firm the skin. It is also used as a basis in bandages to treat skin abscesses and wounds.

The fruit of the 10-15 m high tree weighs 2.5-7 kg and can grow to lengths of up to 50 cm. Traditionally, it is crushed and used to treat and tighten the chest and neckline. KIGAFIRM was developed based on this experience, to be used in cosmetic preparations that help to firm the skin and increase its elasticity.





KIGAFIRM's contents include:

Flavonoids

These are polyphenols with an anti-oxidant effect. The extract typically contains luteolin and 6-hydroxyluteolin plus their glucosides – i.e., flavones bound to glucose. The extract also contains quercetin. Flavones stabilize and tone the surface capillary blood vessels and connective tissue.

Steroidal saponins

and their aglycones, such as ruscogenin, also have a tightening effect on connective tissue.

Phytosterols

such as stigmasterol, campesterol and β -sitosterol stabilize the skin barrier in the same way as human cholesterol.

Verminosides

are iridoids used by plants to defend against damage by herbivores. They also have an anti-

microbial effect and protect plants against microorganisms (bacteria and fungi). This property is used in cosmetics in conjunction with the anti-inflammatory effect.

In the top layers of skin (the epidermis and dermis) referred to as the cutis, there are many lipids and other components that can be easily oxidized. Polyphenols play important roles as antioxidants and free scavenger. They protect against skin damage caused by UV radiation and can inhibit some enzyme functions.

KIGAFIRM's cosmetic applications include caring for the eye region and décolleté. We also recommend including KIGAFIRM in day creams, body lotions and creams for hands and feet.

Packaging and shelf life

Packaging: 25 kg cans

Shelf life: 24 months

Storage at temperatures below 25 °C



Properties

INCI	Kigelia Africana Fruit Extract, Propanediol, Aqua
Active ingredients	Polyphenols, Flavonols, Verminosides
Preservation	None
Appearance	Dark-brown fluid
Odor	Characteristic
pH value	4.5 – 5.5
Use concentration	3 – 5 %
Classification as per (EC) 1272/2008	Not hazardous
CMR / Sens. ingredients	None
Preservation	None
GMO	None
BSE / TSE risk	None
CMR active ingredients	None
Animal testing	Product not tested on animals
Heavy metals / As	<20 ppm / <1 ppm

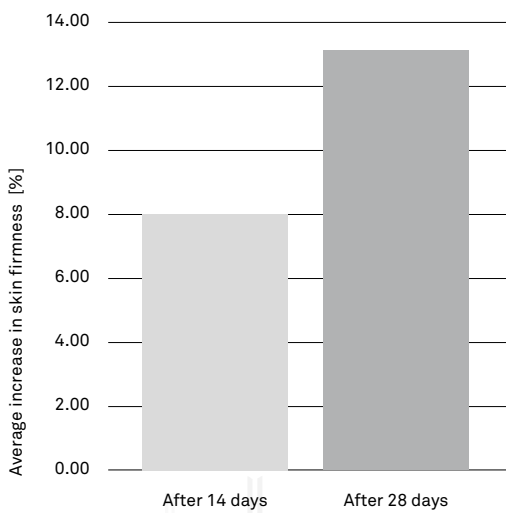




Efficacy Studies

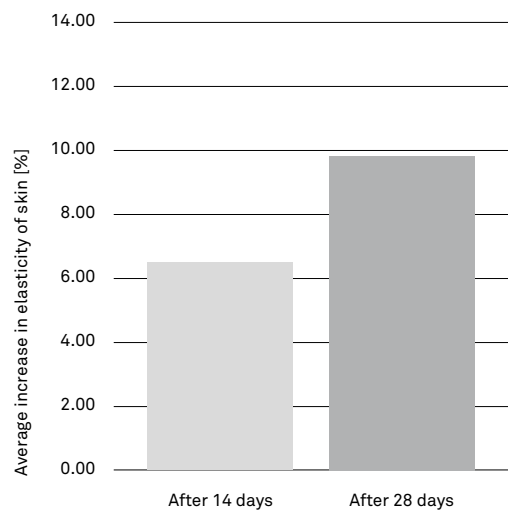
Skin firming effect maximization has been scientifically demonstrated in many studies.

Increase in firmness of skin in relation to original conditions and to untreated skin



↓
■ After 14 days = 8.0 %
■ After 28 days = 13.1 %

Increase in elasticity of skin in relation to original conditions and to untreated skin



↓
■ After 14 days = 6.4 %
■ After 28 days = 9.8 %

Suggested formulation – Natural Skin Firming Lotion

	INCI	Weight %	Trade designation	Supplier
Phase 1	Simmondsia Chinensis (Jojoba) Seed Oil	4	Jojoba Oil	
	Glyceryl Stearate Citrate	3	Rdiamuls 2932K	STOCKMEIER Group
	Glyceryl Caprylate	1	Jolee 7907	STOCKMEIER Group
	Cetyl Alcohol	2	Cetyl Alcohol	
	Sesamum Indicum (Sesame) Seed Oil	1	Sesame Oil	
	Dicaprylyl Ether	8	Dicaprylyl Ether	
	Argania Spinosa Oil	0,5	Argania Spinosa Oil	
	Butyrospermum Parkii	1	Radia 7607	STOCKMEIER Group
Phase 2	Glycerin	1	Glycerin 99,5 HP	STOCKMEIER Group
	Xanthan Gum	0,2	Xanthan 80 MESH, E415	STOCKMEIER Group
	Aqua	71,4	demineralized	
Phase 3	Kigelia Africana Fruit Extract, Propanediol, Aqua	5	KIGAFIRM	STOCKMEIER Group
Phase 4	Phenylpropanol, Ethylhexylglycerin	1	TroyCare EPP 37	STOCKMEIER Group
	Citrus Reticulata (Mandarin) Peel Oil	0,4	Mandarin Oil	
	Lavandula Angustifolia (Lavender) Oil	0,4	Lavender Oil	
	Tocopheryl Acetate	0,1	Tocopheryl Acetate	

Specification Values

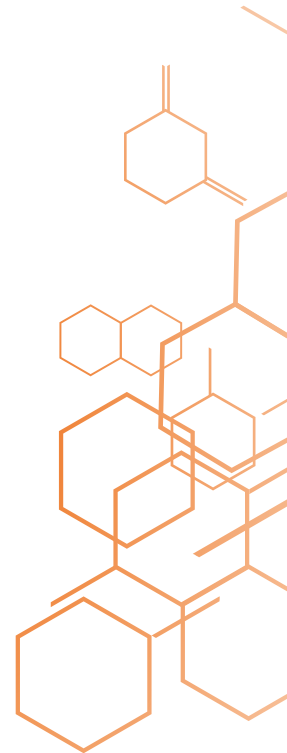
pH value	4.5 – 5
Appearance	Amber colored lotion
Centrifugation (15 min., 400 rpm)	No separation

Stabilität

Stable for 3 months at 4 °C, 20 °C and 40 °C
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Manufacturing Process

1 Heat phase 1 to 65 °C.
2 Heat phase 2 to 65 °C. Emulsify phase 2 into phase 1 by stirring. Homogenize for 2-5 minutes.
3 Starting cooling with medium stirring.
4 Add phase 3 and 4 once it has cooled down to below 45 °C.
5 Let it cool to 30 °C while stirring.
6 Adjust the pH value if necessary.



Concept and design: Vogelsänger | EN 09/2017



**STOCKMEIER
GROUP**

STOCKMEIER Group

Am Stadtholz 37
33609 Bielefeld
Germany
Fon +49 521 / 3037 - 0
Fax +49 521 / 3037 - 159

personalcare@stockmeier.de
www.stockmeier.com