KIGELIA

PRODUCT IDENTIFICATION

INCI composition (EU) : Aqua
Butylene Glycol
KIGELIA AFRICANA

CAS no. : 7732-18-5
CASE no. : 107-88-0

CTFA n° : 75152
CTFA name : KIGELIA AFRICANA (and) BUTYLENE GLYCOL (and) WATER

BOTANICAL DATA

Common Name : Sausage tree

Local Name : Blima (Baoule), Bo (Shien), Non (Gouro)

Family : Bignoniaceae
**Kigelia africana** is a small spreading tree (10 to 15 m) with pendulous racemes of dull liver-coloured flowers and a long-stalked large gourd-like fruit (25 to 30 cm of long and 8 cm of diameter). The French name is “saucissonnier” because of their sausage-shaped fruits.

The Bignoniaceae, principally tropical plants, are concentrated in South America. Kigelia Pinnata is to be found in tropical Africa and south India.

The activity of the plant is in the fruit-compounds. The crushing of the fruits by African women give a thick liquid, they apply on their breast for firming it up.

**ACTIVE INGREDIENTS**

The seeds, without albumen, yield a small amount of oil with an iodine value of 185, the highest of any of the Bignoniaceae oils. The infrared spectrum has maximal at 1650 (W) and 3000 (S) cm⁻¹, indicating ordinary cis-insaturation. There were no peaks in the region of trans (960 cm⁻¹) and conjugated unsaturation (900-1000 cm⁻¹) or hydroxyl groups (3500 cm⁻¹). Similarly, the UV spectrum showed no evidence of conjugated double bonds.

**COMPOSITION OF THE FATTY ACIDS**

<table>
<thead>
<tr>
<th>Fatty酸</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>18:3</td>
<td>40 - 60%</td>
</tr>
<tr>
<td>18:2</td>
<td>15 - 25%</td>
</tr>
<tr>
<td>18:1</td>
<td>10 - 25%</td>
</tr>
<tr>
<td>18:0</td>
<td>1 - 6%</td>
</tr>
<tr>
<td>16:0</td>
<td>5 - 8%</td>
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The main constituents of the unsaponifiable are the steroidal saponins: STIGMASTEROL, β SITOSTEROL and ESTRONE-LIKE.

**Kigelia africana** also contains LUTEOLINE (Flavone) and QUERCITINE (Flavonol). These flavonoids are present as free aglycones and are lipophilic.
FLAVONES
R = O H : Luteolin

FLAVONOLS
R = OH : Quercitin

### SPECIFICATIONS

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
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<tbody>
<tr>
<td>Appearance</td>
<td>Limpid liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Brown</td>
</tr>
<tr>
<td>Odour</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Density (20° C)</td>
<td>1.020 ± 0.010</td>
</tr>
<tr>
<td>Refractive index</td>
<td>1.390 ± 0.010</td>
</tr>
<tr>
<td>pH</td>
<td>5.5 ± 1.0</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in water and alcohol 60° C</td>
</tr>
<tr>
<td>Plant/Solvent</td>
<td>1/1</td>
</tr>
<tr>
<td>Solvent</td>
<td>Water/Butylene Glycol : 53/47</td>
</tr>
<tr>
<td>Identification of Flavonoids</td>
<td>positive</td>
</tr>
<tr>
<td>Preservative</td>
<td>0.25 % Phenonip</td>
</tr>
<tr>
<td>Total germs</td>
<td>&lt; 100/ml</td>
</tr>
<tr>
<td>Yeasts and moulds</td>
<td>&lt; 100/ml</td>
</tr>
<tr>
<td>Pathogens</td>
<td>Absence</td>
</tr>
</tbody>
</table>

### COSMETIC PROPERTIES

Because *Kigelia africana* fruits contain STEROIDAL SAPONINS, and two FLAVONOIDS, LUTEOLINE and QUERCITINE, it is very interesting to use a *Kigelia africana* fruit extract to DEVELOP the BUST, and REINFORCE the strength and stability of the BREAST COLLAGEN FIBERS.

Flavonoids, give it vitamin properties (Vit. P). They are a vascular protector, with a vasoconstriction of capillaries but also which reinforce the strength and stability of the collagen fibres. These flavonoids stimulate enzymatic activity: such is the case of proline hydroxylase. This stimulation would favour the formation of cross-links between collagen fibres, reinforce their strength and stability, and prevent their denaturising.
More generally, flavonoids are enzyme inhibitors:
• elastase inhibition,
• hyaluronidase inhibition, which would maintain the intercellular ground substance in the pervascular sheath.

As breasts have no muscle they are only maintained in place by their skin covering which is only fixed to the thorax by Cooper's ligament which in turn inserts into the pectoral muscles.

Steroidal saponins, with the oestrone-like activity develop the breast with a local action. Steroidal saponosides have hormone like activity. It is well known that endocrine factors are involved in skin ageing. Studies have shown that oestrogens increase the activity of fibroblasts, and water, hyaluronic acid and collagen content in the dermis and thereby have beneficial effects on the structure of the skin.

Through these effects on the properties of the skin covering to the breast (DEVELOPMENT, FIRMING, TENSION) the breast increases in volume and tone, is lifted upwards, pointing the nipple upwards. **Kigelia africana** Extract therefore gives breasts back a more pert appearance and increase volume.

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<th>APPLICATIONS</th>
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<tr>
<td>Creams, gels, ointments,</td>
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<td>Use level : 5 - 10 %</td>
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The **Kigelia africana** extract should be added in the preparation at a temperature that does not exceed 40° C.

<table>
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<tr>
<th>TOXICITY</th>
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<tr>
<td>Oral toxicity : not considered as toxic (DL 50 : oral/rats &gt; 40g/kg)</td>
</tr>
<tr>
<td>Skin irritation: not irritant</td>
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<tr>
<td>Skin sensitisation : not sensitising</td>
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**EXTERNAL USE ONLY**

<table>
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<tr>
<th>STORAGE</th>
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<tr>
<td>In a closed container, at room temperature (20° C), away from light, heat, and humidity sources.</td>
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