

## Botanical Extracts

### Areca Catechu Extract (Areca Catechu L)

#### Extract Information

This extract is obtained from dried ripe Areca Nut (Seed) by alcoholic extraction.

**Family:** Arecaceae

**CAS:** 89957-52-8



|                     |   |
|---------------------|---|
| <b>Product Name</b> | Areca Nut Extract   |
| <b>Synonym</b>      | Areca Catechu Extract   |
| <b>Part Used</b>    | Seed  |
| <b>Color/Form</b>   | Brown powder  |
| <b>Grade</b>        | Pharmaceuticals, Cosmeceuticals, Herbal medicines                 |
| <b>Storage</b>      | Store in a clean, cool, dry area. Keep away from direct sunlight. |
| <b>Shelf Life</b>   | 24 months when properly stored.                                   |

#### Phytochemistry

This extract contains polyphenols such as, (+)-leucocyanidin, epicatechin, (+)- catechin, tannins such as procyanidin, areca tannin and alkaloids.

#### Biological Activity

1. It has many medicinal uses as per Indian Ayurvedic medicines as well as Chinese medicines.
2. It is indicated in the use of digestive function disorders.
3. It is used as anti-parasitic medicine in veterinary medicines.
4. It is indicated in the use of sugar control and depression or anxiety.
5. It is also used as a diuretic, a strengthener of the heart and a regulator of menstrual flow.
6. It is also indicated effective in wound healing including mouth ulcers.
7. Formulated in cosmetic product as anti-oxidant, anti-wrinkle and whitening agent.

## Chlorophyllin (Sodium Copper Chlorophyllin)

### Extract Information

This extract is obtained from fresh spinach.

**CAS:** 11005-34-1



**Molecular Formula:**  $C_{34}H_{31}CuN_4Na_3O_6$  **Molecular Weight:** 724.15

|                     |   |
|---------------------|---|
| <b>Product Name</b> | Chlorophyllin   |
| <b>Synonym</b>      | Sodium Copper Chlorophyllin, Chlorophyllin                        |
| <b>Part Used</b>    | Leaf  |
| <b>Color/Form</b>   | Bright green powder   |
| <b>Grade</b>        | Pharmaceuticals, Cosmeceuticals, Herbal medicines                 |
| <b>Storage</b>      | Store in a clean, cool, dry area. Keep away from direct sunlight. |
| <b>Shelf Life</b>   | 24 months when properly stored.                                   |

### Biological Activity

1. Chlorophyllin has been used in alternative medicine as an aid to reduce the odor of urine or feces related to a colostomy, ileostomy, or incontinence.
2. Highly soluble in water and hence used as a colorant in dietary supplements and personal care products.
3. Chlorophyllin has demonstrated antioxidant effects, and may decrease oxidative damage induced by chemical carcinogens and radiation.
4. It is also indicated effective in wound healing.
5. It also has potential as an acne treatment
6. It is also beneficial in treating hemoglobin deficiency disorders, such as anemia and thalassemia.

## Citral

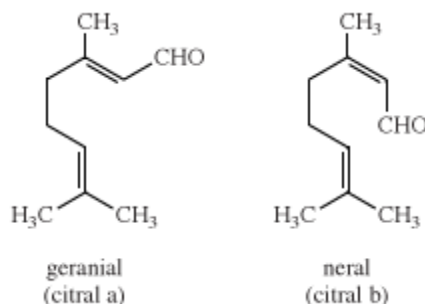
It is a monoterpene isolated from lemongrass.

It contains two isomers - geranial (citral a) or neral (citral b).

**CAS:** 5392-40-5

**Molecular Formula:** C<sub>10</sub>H<sub>16</sub>O

**Molecular Weight:** 152.24



### Specifications

|                     |   |
|---------------------|---|
| <b>Product Name</b> | Citral  |
| <b>Synonym</b>      | Lemonal, 3,7-Dimethyl-2,6-octadienal, Geranial and Neral mixture  |
| <b>Part Used</b>    | Natural lemongrass  |
| <b>Color/Form</b>   | Pale yellow liquid  |
| <b>Application</b>  | Food, Fragrance and Health industry                               |
| <b>Storage</b>      | Store in a clean, cool, dry area. Keep away from direct sunlight. |
| <b>Shelf Life</b>   | 24 months   |

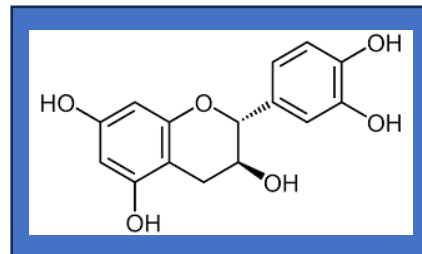
### Applications:

1. Used in food and beverage industry.
2. Used as a component in perfumes and other personal care products.
3. It is also a natural insect repellent.
4. It is also indicated effective to alleviate symptoms of rheumatoid arthritis, reduce inflammation in the digestive tract, and treat fungal infections such as athlete's foot and candidiasis.
5. Citral is used in the formulation of many types of products including aftershave lotions, bath products, moisturizers, perfumes and colognes.

## APIs

**Catechin:** [+ (-) Catechin Analytical Standard]

Catechin is a flavan-3-ol, a type of secondary metabolite, providing antioxidant roles in plants. It belongs to the subgroup of polyphenols called flavonoids. The name of the catechin chemical family derives from catechu family.



Our product is obtained from dried ripe Areca Nut (Seed).

### Empirical Formula (Hill Notation):

C<sub>15</sub>H<sub>14</sub>O<sub>6</sub>:

**CAS No** 154-23-4      **Molecular Weight** 290.27

|                            |                                    |
|----------------------------|------------------------------------|
| <b>Product Name</b>        | (+) – Catechin analytical standard |
| <b>Synonym</b>             | (+)- Cyanidanol , D-Catechin       |
| <b>Part Used</b>           | Seed                               |
| <b>Color/Form</b>          | White or cream                     |
| <b>Purity (HPLC Area)</b>  | >97%                               |
| <b>Proton NMR Spectrum</b> | Conforms to structure              |
| <b>Expiry Period</b>       | 36 months when properly stored.    |
| <b>Storage temperature</b> | 2-8 °C                             |

### Phytochemistry

This analytical standard is useful as a reference standard as well used in Food and Beverages.

### Biological Activity

1. It is a well-demonstrated antioxidant and hence useful in various drugs.
2. It is indicated to be useful to reduce the symptoms of Parkinson's disease and Alzheimer's disease.
3. Catechin exhibits immunomodulatory effect and hence is indicated as a therapeutic ingredient.

## Cosmetic Enhancers

### Advanced Skin Care Combo

This contains Areca Nut extract along with some other components to enhance skincare formulations.



| Product Name | Advanced skin care combo  |
|--------------|---|
| Part Used    | Seed  |
| Color/Form   | Brown liquid  |
| Grade        | Cosmeceuticals  |
| Storage      | Store in a clean, cool, dry area. Keep away from direct sunlight. |
| Shelf Life   | 24 months when properly stored.                                   |

### Areca Extract for Skin-care

Areca extract has many properties which enhance skin care formulations.

The Catechins, Procyanidins in the Areca extract exhibit great radical scavenging effect and hence the extract acts as a strong antioxidant.

It also exhibits skin cleansing and anti-bacterial properties. Hence, it can be an ingredient for cleansing lotions.

Areca extract acts as anti-wrinkle agent as well as whitening agent in skin-care formulations.

Areca extract with areca fat can form a great combination in the cleansing lotion formulation for dry skin.

### Areca Fat (Hydration Booster)



#### Extract Information

This fat is obtained from dried ripe Areca Nut (Seed).

|                     |   |
|---------------------|---|
| <b>Product Name</b> | <b>Areca Fat (Hydration Booster)</b>                              |
| <b>Part Used</b>    | Seed  |
| <b>Color/Form</b>   | White or light cream fat  |
| <b>Grade</b>        | Cosmeceuticals, skincare products                                 |
| <b>Storage</b>      | Store in a clean, cool, dry area. Keep away from direct sunlight. |
| <b>Shelf Life</b>   | 3 months when properly stored.                                    |

#### Phytochemistry

The chief component acids are lauric (19.5%), myristic (46.2%) and palmitic (12.7%), and in the unsaturated portion oleic (6.2%), linoleic (5.4%) and hexadecenoic acid (7.2%).

#### Applications

1. The refined fat has higher melting points and hence is useful in confectionaries.
2. It exhibits very good skin cleansing as well as moisturizing effect for the skin. Hence, can be used along with other butters to boot the hydration.
3. The high percentage of myristic acid can make it a perfect ingredient for cleansing products.