

MISSION

We provide purified polyphenols and other related biomolecules extracted via inhouse developed membrane separation and chromatographic process. These molecules find applications in industries such as food & beverages, nutraceuticals, cosmetics, pharmaceuticals and Consumer Electronics.



farmGULP

www.farmgulp.com

PRODUCT IMAGES



1. Areca Wash Liquid Filtered



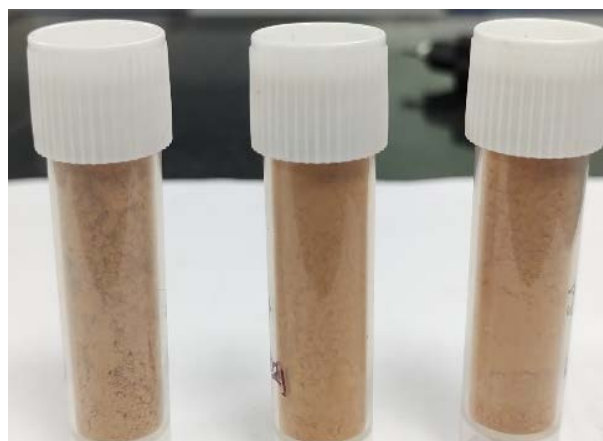
A. Kattha Freeze Dried; B. Kattha spray dried; C. Tannins, E. Dye Molecules



3. Tannin and Kattha non dried



4. Kattha Tray Dried



5. Spray dried samples of catechu fraction/Kattha



6. Our Tanned Goat Skin at CLRI

PRODUCTS- Polyphenols

Polyphenol mixture

Description: Catechin family of polyphenols

Source: Areca Catechu (Beetle Nut)

Purity: 60-90% Polyphenols with 70% Catechins

Alternative for: Green Tea Polyphenols

Type of molecule: Polyphenol-Flavanoids

Base: Water, Hydroalcohol,

Solid powder form or Liquid.

Melting Point: 175-300 °C

Applications:

- 1.Preservative
- 2.Anti-oxidant
- 3.Vasodilation
- 4.anti-depressant



PRODUCTS- Polyphenols

Catechin

Formula: $C_{15}H_{14}O_6$

Molecular Weight: 290.27 g/mol

CAS: 154-23-4

Type of molecule: Polyphenol-Flavanoids

Base: Water, Hydroalcohol,

Solid powder form.

Melting Point: 175-177 °C



Applications:

- 1.Preservative
- 2.Anti-oxidant
- 3.Vasodilation
- 4.anti-depressant

PRODUCTS- Polyphenols

Epigallocatechin

Formula: $C_{15}H_{14}O_6$

Molecular Weight: 290.27 g/mol

CAS: 496-46-0

Type of molecule: Polyphenol-Flavanoids

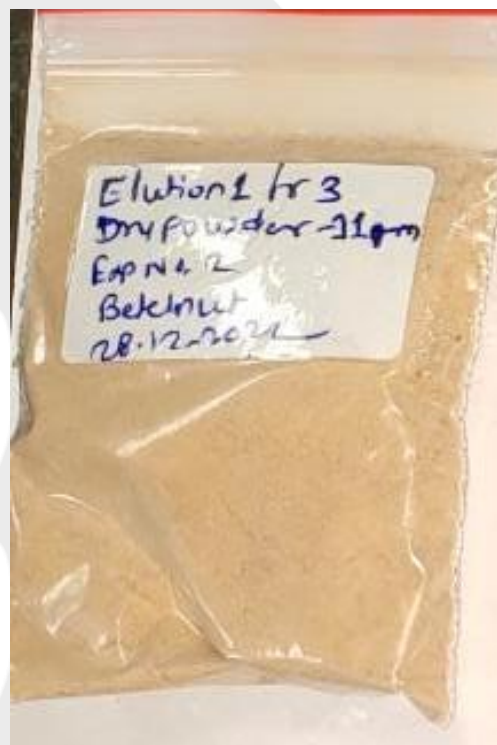
Base: Water, Hydroalcohol,

Solid powder form.

Melting Point: 240 °C

Applications:

- 1.Preservative
- 2.Anti-oxidant
- 3.Vasodilation
- 4.anti-depressant



PRODUCTS- Polyphenols

Epigallocatechin Gallate (EGCG)

Formula: $C_{22}H_{18}O_{11}$

Molecular Weight: 458.4 g/mol

CAS: 989-51-5

Type of molecule: Polyphenol-Flavanoids

Base: Water, Hydroalcohol,

Solid powder form.

Melting Point: 140-142 °C



Applications:

1. Preservative-antioxidant
2. Anti-ageing agent
3. Chemo Protective agent
4. anti-tumour agent

PRODUCTS- Polyphenols

Tannins

Type of molecule: Polyphenol-Flavan-3-ols

Appearance: Solid and Liquid form

Base: Water, Hydroalcohol.

Melting Point: >200 °C

Applications:

- 1.Tanning of Leathers
- 2.mordant-natural dyeing
- 3.Anti-corrosive primer
- 4.Anti-oxidant
- 5.Preservative



PRODUCTS- Polyphenols

Proanthocyanidin

Type of molecule: Polyphenols

Appearance: Solid and Liquid form

Base: Water, Hydroalcohol.

Melting Point: >200 °C

Applications:

- 1.Organic Dye
- 2.Food Colourant
- 3.Anti-oxidant



PRODUCTS- Polyphenols

Syringic Acid

Formula: $C_9H_{10}O_5$

Molecular Weight: 198.17 g/mol

Type of molecule: Polyphenols

Appearance: Light Brown Powder

Base: Water, Hydroalcohol.

Melting Point: >200 °C

Applications:

- 1.Anti-Bacterial
- 2.Anti-Oxidant
- 3.Anti-inflammation
- 4.Anti-cancer

PRODUCTS- Alkaloids

Arecoline

Formula: $C_8H_{13}NO_2$

Molecular Weight: 155.19 g/mol

CAS: 63-75-2

Type of molecule: Alkaloids

Appearance: Liquid, Powder

Melting Point: <25 °C

Applications:

1. Agonist of Muscarinic & nicotinic acetylcholine receptors
2. Parasympathomimetic
3. Ganglionic Stimulant
4. Vermifuge
5. Skin Whitening agent

PRODUCTS- Others

Organic katha

Alternative: Areca Catechu

Type of molecule: Polyphenols

Appearance: Pale Pink amorphous Powder

Melting Point: 175-177 °C

Applications:

- 1.Paan Katha
- 2.Preservative
- 3.Anti-Diabetic
- 4.Anti-Hypertensive
- 5.Oral health
- 6.Mouth Freshener



PROCESS



Pilot Scale
Column
Chromatography



Lab Scale Chromatography



Purification using AKTA AVANT (Cytiva)

ABOUT US

We Farm Gulp; are young Biopreneurs, working in the industrial biotechnology, secondary agriculture and Nutra Phyto biotechnology domains. We study, test, imply the novel and effective techniques in Bioprocess technology to add value to the agricultural products and byproducts for the isolation and production of industrially valuable intermediary products.

Contact

+91-7795618099,
+91-7676635922

admin@farmgulp.com
nagendra@farmgulp.com

WFF-4, Bangalore
Bioinnovation Centre,
Helix Biotech Park, Electronic
City-1,
Bengaluru-560100

WHY US



Selective
Purified



Green
Process



Completely
Natural



Made in India



Economic
Value