



# GUAYULE EXTRACT

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# BEEM BIOLOGICS Extraction Process

(A proprietary process)

Guayule Root is milled to <math><1/4''</math> in size.

Material is placed in Bioreactor

- Water is the only solvent used
- Water temperature is maintained at a constant temperature. Actual extraction temperature is proprietary, but does not exceed 150° F.
- Dwell Time is fixed
- The Root/Water Ratio is fixed

Extract is decanted and filtered

# Extraction Continued:

## Guayule Extract: Quality Control

- Post Extraction Analysis
  - pH: 4.5 – 5:0
  - Test for bacteria, yeast and fungi.
  - Extract is evaluated with a Liquid Chromatography/Mass Spectrometer to confirm compounds and potency

## Stabilization of Guayule Extract

- The raw extract will vary in pH.
- Adding 0.5% Nitrogen and 0.5% Potassium stabilizes the extract pH and microbial activity.
- pH settles at 4.0

TRADE NAME:  
ISOPLEX™

The stabilized Guayule Extract is marketed by Beem Biologics Inc as a “Manufacturers Use Product” to be added to fertilizer formulations.

As a naturally derived plant extract, organic registration with OMRI and CDFA is currently in progress.



**BEEM BIOLOGICS**

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Manufactured by:

BEEM BIOLOGICS INC

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