

XANTHOMYST PLUS™

Revolutionizing TRUE Nanotechnology, Potency, Bioavailability & Delivery (Mangosteen Full Spectrum Xanthone Supplement)

Open Access

Type: Analytical Summary

Format: pdf

Date: 08/28/2024

Abstract

Objective: This overview focuses on the previous insolubility of the mangosteen pericarp's xanthone-rich nutrients which leads to limited absorption in the body, and a scientific development that renders mangosteen pericarp more potent than any other mangosteen supplement ever brought to market.

Introduction: Xanthones are a group of heterocyclic organic compounds that include α -mangostin, β -mangostin, and γ -mangostin, commonly found within the pericarp of the mangosteen plant *garcinia mangostana*. All these compounds are practically insoluble in water and tend to remain associated with the pericarp. This limitation severely restricts the formulation of products that contain concentrations of these compounds high enough to be considered as having any significant degree of efficacy.

Materials and Methods: XanthoMyst Plus™, unlike crude, dried, and liquid mangosteen pericarp-based products, is manufactured using a proprietary process. The final result is a mangosteen product that is fully bioavailable and stable created using state of the art encapsulation technology. This means that you get all the health benefits that the mangosteen pericarp can deliver without the issues normally associated with mangosteen pericarp.

Nanoencapsulation in Ultra-Pure Lipids: The bioavailability of encapsulation-stabilized α -mangostin, and other molecules present in XanthoMyst Plus™, strongly depends on the particle size. Optimizing and confirming liposomal particle size during product formulation has therefore been a key point of focus during the development of XanthoMyst Plus™. ISO-17025 accredited, third-party laboratory testing using Dynamic Light Scattering based particle size analysis has confirmed that the XanthoMyst Plus™ liposomal particle size distribution is within the scientifically defined range required for a true nanosized formula.

Part of the usual QC we do is using a Malvern particle size machine to verify the particle size before releasing the product to the public. This is done every production run. We run this both before and after the encapsulation step. As Canada has indicated that their laws only pertain to the final overall particle size and not to the primary particle size, we have targeted 60 to 80 nanometers for the size of the pericarp with the final size being about 120 nanometers after encapsulation. What enters the blood stream headed to the liver is 60 to 80 nanometers.

Stability: The stability of nano encapsulation is routinely determined by calculating the zeta potential and the Van de Waals forces. Formulas that have these two forces balanced are considered physically stabilized, Zeta potential is measured using a Zetasizer Nano ZS (Malvern Panalytical) dynamic light scattering (DLS) instrument.

The zeta potential is measured by the Malvern unit. The Van de Waals forces are a calculated value done by the development team for this product. Our PhD had to calculate for about 135 separate molecules.

1

Data Availability: Because of the proprietary nature of the XanthoMyst Plus™ technology and process, certain detail has currently been reserved for internal use only.

These statements have not been evaluated by the FDA. This product is not intended to diagnose, treat, cure or prevent any disease. Individual weight loss results will vary.

XANTHOMYST PLUS™

Revolutionizing TRUE Nanotechnology, Potency, Bioavailability & Delivery (Mangosteen Full Spectrum Xanthone Supplement)

Open Access Type: Analytical Summary Format: pdf Date: 08/28/2024

Continued:

There isn't a machine that can calculate Van de Waals forces, so most companies don't bother calculating it. We feel that is a mistake because unless these two forces are balanced, you don't know if the formula is stable or not. Too high of a Zeta potential and you will never achieve concentration goals. Too low and Van de Waals forces take over and everything falls out.

Conclusion: ISO-17025 accredited, third-party lab testing of XanthoMyst Plus™ has confirmed the complete xanthone potency as well as the nano encapsulated particle size distribution and stability, all three key indicators of product stability and enhanced bioavailability.

This was done on the raw material. What is in the raw material is in your product as the amount is greater than was used for the test. We believe the amount to be higher in the XanthoMyst Plus™ product, but as this is a natural product it will vary from each harvest season. At this point, a larger quantity of mangosteen pericarp powder has been ordered to maintain stability of production. Depending on sales, we expect that to last around two years. When we order again, a new analysis will have to be done and that number be used for future marketing.

Data Availability: Because of the proprietary nature of the XanthoMyst Plus™ technology and process, certain detail has currently been reserved for internal use only.

These statements have not been evaluated by the FDA. This product is not intended to diagnose, treat, cure or prevent any disease. Individual weight loss results will vary.