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Liposomal Micelle | Improved Bioactivity-availability



α -Tocopherol



Esolv®

Virun's proprietary and patented clean label claim micro-encapsulation technology.

*Micelle and Liposomal encapsulation, such as **Esolv®**, have been shown to improve the oral bioavailability of water insoluble compounds compared to non-encapsulated.*

THE SCIENCE

Esolv® is a patented, natural, Vitamin E emulsifier.

Esolv® is a patented, natural, Vitamin E emulsifier that is produced through polymerization, which creates more complex molecular chains. It is then naturally emulsified in water, and allows the Vitamin E to become more water dispersible.

We further process it to remove any free polymers, which results in a clean label Vitamin E as **Alpha Tocopherol**.

Our products using Esolv® are ten times more likely to be highly bioavailable.

The human body absorbs water soluble nutrients much more easily, and insoluble compounds such as *Curcumin, CoQ10, Lutein, Lycopene, Beta Carotene, and other compounds* are dissolved into water solutions, making the liquid easily dispersed.

IT'S ALL ABOUT THE MICELLE + LIPOSOMES

Esolv® encapsulated, water insoluble compounds have been shown to increase as much as 8 times, or 800% absorption.

Liposomes and Micelles not only increase bioavailability, but also has a sustained release effect.

Esolv® are amphiphilic micelles, with the ability to be dissolved in both water and oil. Esolv® can produce micelles as small as 10–20nm particle size.

The exact diameter range needed to be absorbed into the body.

The better it dissolves, the better it is absorbed.

FINISHED PRODUCT + POSSIBILITIES

Esolv® encapsulated into Micelles and Liposomes have been shown to improve the overall half-life, bioavailability and sustainability of the active compounds being delivered, for example:

- Curcumin,
- EPA, DHA,
- ALA,
- SDA,
- GLA (Gamma Linoleic Acid),
- CBD,
- Vitamin D,
- Vitamin K2,
- Vitamin K2,
- PQQ (Pyrroloquinoline quinone),
- Ubiquinone,
- Vitamin E,
- MCT, and
- Astaxanthin.
- ...and more!

Dry Powders



Spray-dried Astaxanthin powder

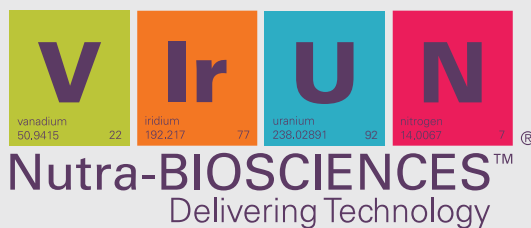
Dry powders with high concentration of non-polar compounds and healthy fats. Patents and Patents-pending. In-house micro-encapsulation.

- Spray dry microencapsulation for non-polar compounds and fats, such as:
 - *10% CoQ10 Powder
 - *3% Astaxanthin Powder
 - *12% DHA Omega 3 (in partnership with Algorithm DHA in Canada) Powder
 - *EPA DHA Omega3 Powder
 - *60% MCT from coconut oil Powder
 - ..and many more
- Agglomeration for quick-dissolving powder used in Stick Packs, Direct Compressible for Tablets and Powder Pouches.



Esolv® Liquid Emulsions, Patents and Patents-pending apply

- Microencapsulation of liquid emulsions for finished products with good flavor
- Microencapsulation of liquid emulsions for further processing
- Nanotechnology of liquid emulsions for further processing clear type applications



Creating Impossible Products.