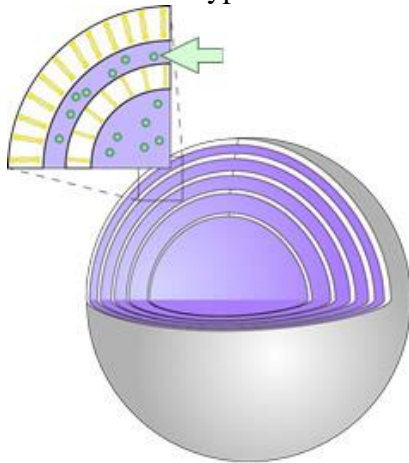


Liposome Technology

For eight years we have been making ReadiSorb products using high quality materials and patented liposome technology.

A liposome is an extremely small (1/2 the width of a human hair), multi-layered bubble (called a vesicle). Liposomes have a fat-soluble exterior and an interior that is watery. They are made from the same type of material as our cell membranes, phospholipids.



The phospholipids in our liposomes are derived from lecithin, which is an extraction taken from soy oil. There is no soy protein in the product.

[Click here to see a photograph of one of the liposomes magnified 50,000 times.](#)

The unique structure of liposomes allows them to encapsulate biologically active ingredients. In the case of glutathione, the liposomes keep it in its “reduced”, or biologically active state. The liposomes in our products are very stable, which allows use in an oral drink or an oral spray. The arrow in the diagram to the right shows where the nutrient is located in the liposome.

Liposomes penetrate mucosal tissues allowing for rapid release into the blood stream. Nutrients that are not in liposomes have to pass through the stomach to reach the liver where they are metabolized and released into the bloodstream. Some nutrients are destroyed or compromised by stomach acids. Liposomes avoid the digestive system.

A paper published in 1965 (*Bangham, A.D., Standish, M.M. and Watkins, J.C. (1965) J. Mol. Biol. 13, 238-252*) described these vesicles for the first time. Since then they have been the subject of great interest and study. A liposomal delivery system of certain anti-cancer drugs has been used to target various malignancies, and other applications for liposomes range from gene therapy to skin care. Currently there are over 40,000 articles listed on the PubMed website (www.pubmed.gov) that relate to studies done using liposomes.