About Ambrotose®





Mannatech's Glyconutritional Natural Health Products

What is Ambrotose®?

Ambrotose® complex and Advanced Ambrotose™ are glyconutritional* natural health products: blends of plant saccharides. The technology behind Ambrotose® complex is patented in many countries around the world, including the United States. Ambrotose® complex and Advanced Ambrotose™ are available in capsules and as a bulk powder that can be added to beverages. Advanced Ambrotose™ includes wakame, a brown algae (*Undaria pinnatifida*).

Is Ambrotose® Safe?

The ingredients in these products have a long history of safe use by humans. The acute oral LD₅₀** of Ambrotose® complex² and Advanced Ambrotose™3 is greater than 5,000 mg/kg body weight in female rats. Mannatech's Product Safety Monitoring Program, established shortly after the launch of Ambrotose® complex over 10 years ago, continues to document that Ambrotose® complex can be safely consumed by both healthy people and those with a wide range of medical conditions. Advanced Ambrotose™ has been safely consumed since it was introduced in January 2005.

Rationale for the Development of Ambrotose®

Experts worldwide agree that numerous vitamins, minerals, fatty acids, and amino acids are necessary for human health. They also agree that one monosaccharide, glucose, is a necessary source of energy. Cognizant of emerging science, Mannatech proposed that other sugars may be beneficial for human health. They appear to impact cellular, tissue, and organ function.⁴ Ambrotose® provides sources of the sugars the body uses for glycoconjugate synthesis. A growing body of scientific literature—particularly that which relates to the complex and critical functions of carbohydrates in the GI tract—suggests that there are likely many additional physiologic effects that may help explain the benefits experienced by many who use Ambrotose®.⁵

Why Would a Person Want to Take a Glyconutritional Supplement?

The family name "sugar" has, unfortunately, been taken by most people to mean table sugar, or sucrose. Sucrose is only one of 200 sugars found in nature and its overuse in the typical Western diet has been a contributor to the current global obesity epidemic.

Because glyconutritional natural health products are not widely known and sugars have a bad reputation, it is understandable that many nutritionists and health care professionals are initially wary of glyconutritional products.

Can't we get these sugars from the foods we eat? Perhaps we can, if we eat a diet rich in freshly-picked, nutrient-rich plant foods, including fruits, vegetables, seeds, roots, and gums. Because of poor food choices, nutrient deficiencies reported in many food crops, and further losses that occur during harvesting, storage, shipping and processing, Mannatech believes that glyconutritional supplementation is beneficial for many people.

For more information, go to: www.mannatech.com and www.glycoscience.org.

*The Greek word "glyco" means "sweet." So, glyconutrients are "sweet nutrients," or dietary nutrients composed of sugars.

**In toxicology, the LD₅₀ (Lethal Dose, 50%) is the median amount of a substance required to kill half the members of a population of laboratory rodents. Ambrotose® and Advanced Ambrotose™ demonstrated no toxicity at the maximum amount that can be tested using the rodent model, 5,000 mg/kg.

REFERENCES

- Physician's Desk Reference for Nonprescription Drugs and Dietary Supplements. 26th edition Edition. Thomson/PDR: Montvale, NJ, 2005.
- 2. Product Safety Laboratories. Acute Oral Toxicity Study in Rats: Ambrotose® complex. Report No. 18946;2006.
- Product Safety Laboratories. Acute Oral Toxicity Study in Rats: Advanced Ambrotose[™]. Report No. 19740;2006.
- 4. McAnalley BH, Vennum E. Introduction to glyconutritionals. *GlycoScience & Nutrition*. 2000;1 (1):1-5.
- Ramberg J, Murray RK, Vennum E, et al. Dietary carbohydrates in the human GI tract: The established and emerging science. GlycoScience & Nutrition. 2005;6 (6):1-10.

AMBROTOSE® COMPLEX

Ingredients: Ambrotose® complex (patent pending), (arabinogalactan, rice starch, gum tragacanth, gum ghatti, aloe vera inner leaf gel powder).

ADVANCED AMBROTOSE™

Medicinal Ingredients: Each dose contains 321.6 mg arabinogalactan (*Larix laricina* or *Larix occi-dentalis*) (wood), 83.75 mg *Aloe barbadensis* (aloe vera) (inner leaf gel powder), 73.7 mg rice starch (*Oryza sativa*) (grain), 67 mg gum tragacanth (*Astragalus gummifier*) (*Astragalus gummifier* gum), 67mg gum ghatti (*Anogeissus latifolia*) (*Anogeissus latifolia*) (*Anogeissus latifolia*) gum), 53.6 mg vegetarian glucosamine HCI (*Aspergillus niger* cell wall), 3.35 mg *Undaria pinnatifida* (wakame) (algae).

Non-medicinal Ingredients: None.



