

Erythritol is the main ingredient of our blends. It is a natural sweetener which belongs to the group of polyols (sugar alcohols). Naturally, erythritol occurs in vegetables, fruit and fermented products, such as soy sauce and red wine, but on the industrial scale it is produced by fermenting glucose with nonpathogenic yeast. It forms small, white crystals and looks similar to sacharose. However, it provides more health benefits.

In contrast to sacharose, erythritol is non - caloric and has zero glycemic index what makes it a suitable sugar substitute for patients with overweight, obesity and diabetes type II. It has been proven that erythritol has antioxidant properties and helps eliminating free radicals from the body. Furthermore, it is assumed that regular consumption of this sweetener may improve small vessel endothelial function and reduce arterial stiffness in diabetes type II. Finally, unlike sacharose, it is non - cariogenic and finds its application in toothpastes and mouthwashes. It has been proven that erythritol is more effective in maintaining oral health than other polyols - xylitol and sorbitol.

Erythritol is so unique not only because of its health - promoting properties, but also because of its pleasant taste. It causes cooling sensation in mouth resulting from its *high negative heat of solution*. It means that erythritol absorbs heat from the solution while dissolving. Erythritol has approximately 60–80% of the sweetness of sugar. To make our blend sweeter, we have added a small amount of stevia which is also non - caloric, safe and natural sweetener.

Erythritol, unlike other polyols, rarely causes gastrointestinal symptoms, such as diarrhea or stomachache. It is because it cannot be metabolized by the human body and is excreted in urine relatively unchanged. The maximum recommended dosage of this sweetener varies depending on scientific sources. Experts usually advise to consume daily no more than 1g per 1kg of body weight. In practice, gastrointestinal tolerance of erythritol is individual, thus, it is advisable to gradually increase its amounts in diet.

- 1. Regnat K, Mach RL, Mach-Aigner AR. Erythritol as sweetener-wherefrom and whereto?. Appl Microbiol Biotechnol. 2018;102(2):587-595. doi:10.1007/s00253-017-8654-1
- 2. de Cock P, Mäkinen K, Honkala E, Saag M, Kennepohl E, Eapen A. Erythritol Is More Effective Than Xylitol and Sorbitol in Managing Oral Health Endpoints. Int J Dent. 2016;2016:9868421.
- 3. Park YC, Lee DY, Lee DH, Kim HJ, Ryu YW, Seo JH. Proteomics and physiology of erythritol-producing strains. J Chromatogr B Analyt Technol Biomed Life Sci. 2005;815(1–2):251–260
- 4. Arumugam B, Subramaniam A, Alagaraj P. Stevia as a Natural Sweetener: A Review. Cardiovasc Hematol Agents Med Chem. 2020;18(2):94-103.
- 5. F. Aguilar, B. Dusemund, P. Galtier, J. Gilbert, D.M. Gott, S. Grilli, R. Gürtler, J. König, C. Lambré, J-C. Larsen, J-C. Leblanc, A. Mortensen, D. Parent-Massin, I. Pratt, I.M.C.M. Rietjens, I. Stankovic, P. Tobback, T. Verguieva, R.A. Woutersen.
- 6. EFSA Panel on Food Additives and Nutrient Sources (ANS); Statement in relation to the safety of erythritol (E 968) in light of new data, including a new paediatric study on the gastrointestinal tolerability of erythritol. EFSA Journal 2010; 8(7):1650.