

## **Isomalt as a Reduced-calorie Bulk Sweetener**

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### *ABSTRACT*

*The bulk sweetener isomalt (Palatinit) is a crystalline equimolecular mixture of two isomers, 6-0- $\alpha$ -D-glucopyranosyl-D-sorbitol and 1-0- $\alpha$ -D-glucopyranosyl-D-mannitol, which has sucrose as its raw material.*

*Numerous nutritional and technological studies have shown the suitability of isomalt for the manufacture of foods that (a) do not cause tooth decay, (b) are energy-reduced and (c) are satisfactory for diabetics. Among its advantages for these purposes is its very high stability to chemical and microbial breakdown. Only a minor part of ingested isomalt is hydrolysed in the small intestine and consequently absorbed, producing minimal changes in serum glucose levels. The major part is broken down by the bacterial flora in the lower gut into carbon dioxide, methane and fatty acids.*

*The main results of controlled respiration and other comparative studies will be considered, and they will be used to calculate the energy value of isomalt.*