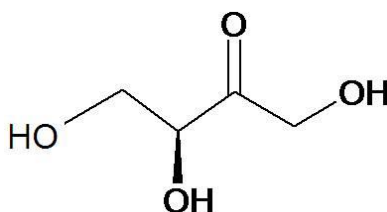


ERYTHRULOSE

In personal care applications, Erythrulose, a keto-sugar (ketotetrose), is typically used in self-tan and bronzing products in conjunction with DHA to provide a more natural looking, longer lasting tan color. Neither of these materials involves the underlying skin pigmentation nor do they require exposure to ultraviolet light to initiate the color change.



The bronzing effect observed from the use of Erythrulose is due to Maillard-like chemical reactions taking place in the skin. The Erythrulose reacts with the amino acids in the proteins of the stratum corneum and epidermis, leading to the production of brownish polymers (melanoids), giving the appearance of naturally tanned skin.

INCI Name:	Erythrulose
CAS Number:	40031-31-0
Molecular Formula:	C ₄ H ₈ O ₄
Typical Use Levels:	1-3%

PROPERTIES

Appearance	Yellow, highly viscous liquid
Erythrulose (m/m)	≥ 76%
pH (in 50% water)	2.0 – 3.5
Total nitrogen	< 0.1%
Sulfated ash	< 1.5%
Preservatives	None
Appearance	Yellow, highly viscous liquid

The information provided is to our best present knowledge correct and complete and is given in good faith but without warranty. It remains the user's own responsibility to make sure that the information is appropriate and complete for his special use of this product.

September 17, 2013