



## *In Vivo* Xylitol Primary Dermal Irritation and Phototoxicity Evaluation

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**SUMMARY.** Xylitol is a widely studied sugar with therapeutic properties and is effective against microorganisms. Despite a variety of toxicological data being available about this compound, dermal toxicological tests cannot be found. Here, the aim was to carry out *in vivo* assays to verify xylitol skin application safety. Primary dermal irritation studies were done with rabbits using 5 and 10% (w/w) xylitol, in either cream or gel form. Phototoxicity assays were also performed with guinea pigs, using only 10% (w/w) xylitol, in both forms. Primary dermal irritation studies revealed that xylitol topically used (5 and 10%) did not induce erythema or edema formation, but did show phototoxicity properties. Xylitol is an adequate alternative compound to be applied for skin disease control, since this application will be done together with sunscreen.

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**KEY WORDS:** Pharmaceutical preparations, Phototoxicity, Primary dermal irritation study, Xylitol.

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