



Figure 15.13 Reduction in skin sensitization. Results from a Draize skin sensitization test in guinea pigs with preparations containing three different levels of cinnamic aldehyde, either freely dispersed or entrapped in a Microsponge system.

VIII. INCREASED EFFICACY AND AESTHETIC APPEAL OF DRUG FORMULATIONS

Skin care formulations can have increased efficacy and higher aesthetic appeal to the consumer with the use of active ingredients entrapped in Microsponge systems.

In an experiment, the gas-bearing electrodynamicometer (GBE) technique was used to measure skin softening (5). Microsponges containing 50% mineral oil were dispersed at a 5% concentration in a typical oil-in-water skin lotion. A similar preparation containing a urea-formaldehyde microcapsule system with mineral oil was used as a control. Both products were applied to specimens of excised human skin and readings of skin softening were made with the GBE. At the end of 3 hr, both sites of application were gently rubbed. The Microsponge system produced a greater initial increase and a repeated enhancement of skin softening. This softening effect was