Floraesters 20, 30, and 60 in a Lotion Increases Barrier Recovery Associated with Irritation

A lotion containing 2% Floraesters 20, 2% Floraesters 30, or 2% Floraesters 60 increased barrier recovery as measured by transepidermal water loss (TEWL) better than the vehicle lotion and better than the lotion containing 0.5% of the known anti-irritant bisabolol.  

Baseline (pre-shave) TEWL measurements (Tewameter) were taken on normal forearms. The forearms were then dry shaved followed by 30 minute post-shave measurements. The test articles were then applied to each test site (2.5mg/cm²). An additional test article application was made 4 hours later. TEWL measurements were repeated 24 hours post test article application.

Floraesters 20, Floraesters 30, and Floraesters 60 produced statistically significant (p<0.001) better percent barrier recovery than the vehicle and water. Floraesters 30 and 60 also produced statistically significant (p<0.05) better percent barrier recovery than 0.5% bisabolol.

Floratech Ingredients:
Floraesters 20, Floraesters 30, and Floraesters 60

Vehicle (%wt./wt.): water (q.s.), Glyceryl Stearate (and) PEG-100 Stearate (4.00%), Cetyl Alcohol (3.00%), Phenoxyethanol (and) Methylparaben (and) Ethylparaben (and) Butylparaben (and) Propylparaben (0.80%), Xanthan Gum (0.20%), and Disodium EDTA (0.03%)

The clinical study of Floratech® test formulation (CTL_11-036) was conducted on a panel of 15 healthy men and women ranging from 18 to 55 years of age with normal volar forearms. The data presented above was taken over 2 days with 2 applications of the test article and TEWL measurements taken under controlled temperature and humidity conditions. This study was double-blind and randomized. Percent barrier recovery was determined relative to baseline values [Percent Barrier Recovery = (TEWL Post-Shave – TEWL at time X) / (TEWL Post-Shave – TEWL at Baseline) x 100]. Alpha-Bisabolol Natural was supplied by BASF Corporation and a recommended loading percentage was utilized.