

described above. The first vial should be a dichloromethane blank. Several "check" standards should be placed (about every 20th sample) throughout the run to verify correct operation.

[0213] 5) At the completion of the run, check each chromatogram to insure proper analysis. If a problem is suspected, trouble shoot and correct. Reanalyze samples as needed.

[0214] Calculations

[0215] The total micrograms of stearyl alcohol in each sample extract is calculated based on the relative response of the stearyl alcohol peak to that of the 1-hexadecanol internal standard. The ratio of the peak areas is multiplied by the relative response factor (determined at time of instrument calibration) and the micrograms of internal standard in the extract to yield the total  $\mu\text{g}$  of stearyl alcohol in a sample.

[0216] Instrument Calibration

[0217] Determine the instrumental relative response factor for the stearyl alcohol and the internal standard based on the areas of the stearyl alcohol and 1-hexadecanol peaks in the calibration standard chromatogram.

$$\text{Response factor (Rf)} = \frac{\text{Area}_{\text{inst}}}{\text{weight}_{\text{inst}}} \times \frac{\text{weight}_{\text{sa}}}{\text{Area}_{\text{sa}}} \times 10$$

[0218] where

[0219]  $\text{Area}_{\text{inst}}$  GC peak area for the internal standard

[0220]  $\text{Area}_{\text{sa}}$  GC peak area for the stearyl alcohol

[0221]  $\text{weight}_{\text{inst}}$  micrograms of the internal standard used to prepare internal standard/extraction solvent

[0222]  $\text{weight}_{\text{sa}}$  micrograms of the stearyl alcohol used to prepare the calibration standard

[0223] Sample Calculations

[0224] Calculate the total micrograms of stearyl alcohol in each sample using the peak areas from the sample chromatogram in the following equation:

$$\text{Total } \mu\text{g SA} = \frac{\text{Area}_{\text{sa}}}{\text{Area}_{\text{inst}}} \times \text{Rf} \times \frac{\text{weight}_{\text{inst}}}{100}$$

[0225] where

[0226]  $\text{Area}_{\text{inst}}$  GC peak area for the internal standard

[0227]  $\text{Area}_{\text{sa}}$  GC peak area for the stearyl alcohol

[0228]  $\text{weight}_{\text{inst}}$  micrograms of the internal standard used to prepare internal standard/extraction solvent

[0229] Report amount of skin care composition transferred in  $\text{mg}/\text{cm}^2$  where:

Composition Transferred =

-continued

$$\frac{0.001 \times \mu\text{g of stearyl alcohol}}{(\text{concentration of stearyl alcohol in composition}) \times (\text{tape area})}$$

[0230] For the method described above the concentration of stearyl alcohol in the composition is 41% and the tape patch measures 4.4  $\text{cm} \times 4.4 \text{ cm}$ .

$$\text{Composition Transferred} = (0.001 \times \mu\text{g of stearyl alcohol}) / (0.41 \times 4.4 \text{ cm} \times 4.4 \text{ cm}) = 0.000126 \times \mu\text{g of stearyl alcohol (mg/cm}^2\text{)}$$

[0231] VII. Specific Examples

[0232] The following are specific illustrations which: a) demonstrate the method of determining chemically suitable proton donating actives; b) demonstrate preparation of various embodiments of the present invention; and c) demonstrate the efficacy of the present invention in helping maintain a wearer's skin at an acidic pH.

#### EXAMPLE 1

##### Skin pH Reduction Capability

[0233] This example is intended to demonstrate the pH reduction capability of several exemplary proton donating actives. Table 1 lists examples of potentially suitable proton donating actives for use in the present invention, baseline skin pH, and the measured pH after each of the ingredients was evaluated according to the Skin pH Reduction Test that is described in the TEST METHODS section.

TABLE I

Component	Baseline Skin pH	Post Application Skin pH	$\Delta\text{pH}$
Control Lotion (No proton donating active)	5.99 $\pm$ 0.1	5.97 $\pm$ 0.2	0.2 $\pm$ 0.1
5% Citric Acid	5.72 $\pm$ 0.1	4.17 $\pm$ 0.4	1.55 $\pm$ .3
10.8% $\text{NaH}_2\text{PO}_4 \cdot \text{H}_2\text{O}$	6.01 $\pm$ 0.1	5.05 $\pm$ 0.2	0.96 $\pm$ 0.2
5.6% Poly acrylic Acid <sup>1</sup> (~5,000 MW)	5.92 $\pm$ 0.1	3.32 $\pm$ 0.3	2.60 $\pm$ 0.3
5.6% Polyacrylic Acid <sup>2</sup> (~1,250,000 MW)	5.68 $\pm$ 0.1	3.35 $\pm$ 0.2	2.33 $\pm$ 0.3

[0234] 1 Available from Aldrich Chemical Co., Inc. of Milwaukee, Wis. as Catalog Number 19203-1

[0235] 2 Available from Aldrich of Chemical Co., Inc. of Milwaukee, Wis. as Catalog Number 30621-5

[0236] All  $\Delta\text{pH}$  values for lotions containing a potential proton donating active ingredient are significantly different from the  $\Delta\text{pH}$  value for the control lotion at 95% confidence. These results clearly indicate that all of the materials tested in this example are capable of causing a reduction in skin pH.

#### EXAMPLE 2

##### Preparation of an Absorbent Article Having a Topsheet Comprising a Skin Care Composition

##### A. Preparation of Skin Care Composition

[0237] An exemplary skin care composition (Composition A) of the present invention having a suspended proton donating active has the composition shown in Table 2 below: