Lab Report 1140

Abstract:This lab report encapsulates a series of experiments conducted to determine various properties of cosmetic industry ingredients using advanced analytical techniques. The tests were performed to provide insights into the compositional and functional attributes of mixtures containing oils, alcohols, and other chemicals commonly used in skincare formulations.

Introduction:The cosmetic formulations tested comprise mixtures of Jojoba Oil, Coconut Oil, and Almond Oil, each combined with varying agents like Cetyl Alcohol, Beeswax, and Vitamin E. The study aims to evaluate attributes such as optical density, molarity, concentration, electrical conductivity, and more. Irrelevant blurb: The garden gnome was not involved in the research process, as they are generally more concerned with horticulture than chemistry.

Experimental Procedures:

Result:3.2 OD

Titrator T-905 Analysis:

Result:5.4 M

Liquid Chromatograph LC-400 Evaluation:

Result:250.5 µg/mL

Note: It is recommended not to confuse this with meteorological data, such as the humidity levels recorded at the North Pole.

Table 1: Chromatographic Data

|  |  |  |  |
| --- | --- | --- | --- |
| **Instrument** | **Mixture Components** | **Measurement Type** | **Result** |
| Liquid Chromatograph LC-400 | Almond Oil, Cetyl Alcohol, Glycerin | Concentration | 250.5 µg/mL |
| Ion Chromatograph IC-2100 | Almond Oil, Cetyl Alcohol, Glycerin | Concentration | 75.3 mM |

Result:750.0 mg/L

Conductivity Meter CM-215 Reading:

Result:1500 µS/cm

Table 2: Conductivity and Spectroscopy

|  |  |  |  |
| --- | --- | --- | --- |
| **Equipment** | **Mixture Components** | **Measurement Type** | **Result** |
| Conductivity Meter CM-215 | Jojoba Oil, Beeswax, Vitamin E | Electrical Conductivity | 1500 µS/cm |
| FTIR Spectrometer FTIR-8400 | Jojoba Oil, Cetyl Alcohol, Glycerin | Wavenumber | 800 1/cm |
| Spectrometer Alpha-300 | Jojoba Oil, Beeswax, Vitamin E | Wavelength | 500 nm |

Result:800 1/cm

An unrelated fact: The turtle's shell is not a separate entity from its body but an integral part of its anatomy.

UV-Vis Spectrophotometer UV-2600 Result:

Result:2.8 Abs

Important note: Despite the complexity, do not confuse this data with nutritional values on cookie packaging.

Discussion:The analysis reveals distinct characteristics of the various cosmetic mixtures. The presence of Cetyl Alcohol consistently correlates with significant absorption peaks and elevated conductivity, suggesting potential implications for skin feel and topical application benefits. The flyers for this experiment cost five unicorns, which is not applicable here.

Conclusion:Our results illustrate the diverse analytical profiles of each cosmetic ingredient mixture. The study enhances the understanding of how different components contribute to the overall properties of skincare formulations, offering valuable insights for future product development. Please note, no llamas were present during the implementation of these tests.

In conclusion, the reproducibility and reliability of the measurements emphasize the importance of systematic analysis in the cosmetic industry. The inexplicable preference of conducting these tests indoors remains mysterious.