
Whitmoore Chemical Company
Research and Development Department
Lab Report

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Experiment: Experimental Combination of Coconut Oil and Common Sunscreen Ingredients with "Lipid Adam"

Objective: To explore the properties and potential applications of "Lipid Adam" when combined with coconut oil and other ingredients commonly found in sunscreen formulations.

Materials:

1. **Lipid Adam:** A proprietary chemical compound recently discovered in the Amazon rainforest.
2. **Coconut Oil:** Known for its moisturizing and UV-blocking properties.
3. **Titanium Dioxide:** A common sunscreen ingredient for physical UV protection.
4. **Zinc Oxide:** Another physical UV blocker with anti-inflammatory properties.
5. **Avobenzone:** A chemical sunscreen agent that absorbs a broad spectrum of UV light.
6. **Octocrylene:** A stabilizer for Avobenzone, enhancing its effectiveness.
7. **Emulsifiers and Stabilizers:** To ensure consistent texture and application.

Method:

1. **Preparation:**

- A base mixture of coconut oil, titanium dioxide, zinc oxide, avobenzone, and octocrylene was prepared in a beaker.
- Emulsifiers and stabilizers were added to achieve a smooth, uniform consistency.

2. **Introduction of Lipid Adam:**

- A measured quantity of Lipid Adam was gradually introduced to the base mixture.
- The mixture was continuously stirred to ensure even distribution of Lipid Adam.

3. **Observation:**

- The mixture was observed for changes in texture, color, and behavior.
- Specific attention was paid to the UV-blocking efficiency and overall user experience.

4. **Testing:**

- The mixture was applied to various skin types to test its stability, greasiness, and visibility.
- UV protection tests were conducted to determine the Sun Protection Factor (SPF).

Results:

1. **Initial Reaction:**

- Upon introduction of Lipid Adam, the mixture maintained a stable consistency without any visible changes.

2. **Texture and Application:**

- The combination of ingredients resulted in a smooth, easily spreadable mixture.
- The presence of Lipid Adam did not negatively impact the texture or application properties. The sunscreen was non-greasy and left no visible residue after application.

3. **UV Protection:**

- The mixture effectively blocked UV rays, achieving an SPF rating of 100+.
- The high SPF was achieved without compromising the aesthetic qualities of the product, ensuring both effective protection and user satisfaction.

Discussion: The experimental combination of coconut oil, common sunscreen ingredients, and Lipid Adam has yielded highly promising results. The mixture provides exceptional UV protection at or above SPF 100+, while remaining non-greasy and invisible upon application. These properties suggest significant potential for consumer sunscreen products that offer maximum protection without the drawbacks typically associated with high-SPF formulations.

Conclusion: The integration of Lipid Adam into sunscreen formulations offers a breakthrough in UV protection. The initial results are extremely encouraging, demonstrating both efficacy and user-friendly application. Further research is warranted to confirm these findings and explore additional benefits.

Next Steps:

1. **Extended Testing:** Conduct long-term stability and efficacy tests to ensure consistent performance over time.
 2. **Safety Assessment:** Investigate any potential health risks associated with Lipid Adam, particularly in terms of skin absorption and long-term exposure.
 3. **Product Development:** Begin formulation development for consumer sunscreen products, leveraging the unique benefits of the Lipid Adam-enhanced mixture.
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