

Who we are

As scientists, we are pleased to present a line of sun care products with only natural medicinal ingredients and without any harsh, synthetic chemicals. Moondust Natural Sunscreens are specially engineered to provide effective sun protection and can even be worn on top of our attractive protective mineral base designed for everyday use (Moondust Natural Facial Base/Moondust Natural Skin Protector).

We are committed to using only the purest ingredients in our high quality, scientifically formulated sunscreens and sun care products.

There has been No Animal Testing and all our products are tested on volunteers.

We are dedicated to helping change the face of this industry by dispelling myths about sunscreens and sun care.

Contact Us

If you have any questions, feel free to reach out to Moondust Cosmetics at:

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The Role of Sunscreen Re- defined



MOONDUST COSMETICS

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Table of Contents

Introduction.....	1
Scientific Compounds.....	2
Two New Sunscreens.....	3
How Moondust Can Help.....	5

Introduction

Currently, there are a specific set of parameters that define the role of sunscreen and are used to measure its effectiveness. Generally, this is the basis for Sun Protection Factor {SPF} ratings. One of these parameters is redness - most sunscreens are designed to decrease redness and inflammation (**Phase I Sunburn**) following sun exposure. The other parameter in use is pigmentation - most sunscreens decrease the pigmentation response of the body, which is its natural defense against UV damage from sunlight. However, these parameters do not protect against **Phase II** and **Phase III** of **The Sunburn Cycle**. It is **Phase III** or **Apoptosis** that has been associated with skin cancer in scientific experiments. Therefore, this represents a weakness in sunscreens which have not taken this factor into consideration during their formulation.

Scientific Compounds

So, Moondust Cosmetics sets out to formulate a new sunscreen that would protect against **Phase I, II, and III** of **The Sunburn Cycle**. It settled on two excellent compounds for the job. Then, it proved that they work to block **UV A** and **B** radiation through special scientific experiments and that they prevent all three stages or *phases* of sunburn in a sunscreen trial.

Moondust Cosmetics sets out to formulate a new sunscreen that would protect against Phase I, II, and III of The Sunburn Cycle.

Zinc Oxide has been used for centuries as a specialized skin ointment and it was known as *pushpanjan* in Ayurvedic medicine. It was chosen for its property as the broadest spectrum UVA and UVB reflector that is approved for use as a sunscreen by the FDA. It acts as a physical sunblock by scattering ultraviolet light more effectively than other substances. Moreover, it is photostable and does not degrade easily. Zinc oxide has the added advantage of sitting on the surface of the skin without being absorbed into it which may not be the case with the microfine or nano powder forms.

Melanin was chosen because it is the natural sunscreen of the human body, which usually protects itself from solar radiation by increasing melanin production. It ranges in colour from red and yellow {pheomelanin} to brown and black {eumelanin} with the latter being the most effective at higher UV intensities. It likely acts as a chromophore by absorbing light energy and undergoing a subsequent conformational change involving the excitation of electrons. The resulting energy may be converted into lower energy radiation and heat which can be dissipated. However, certain individuals are not able to produce enough melanin to fulfill this function and the result is sunburn. Thus, there is reason to suppose that it may be one of the most suitable ingredients for a commercial sunscreen. Previously, it has been shown that bacterial-derived melanin can provide photoprotection against UVA-induced cell death. Therefore, melanin derived from black sesame [*Sesamum indicum*] was selected for its potential application as an active sunscreen against the UV A and B components of sunlight.

*[new sunscreen formulations] proved that they work to block **UV A** and **B** radiation through special scientific experiments.*



Figure 1. Control - No Sunscreen (Phase III sunburn)



Figure 2. Zinc Oxide Sunscreen (no sunburn)

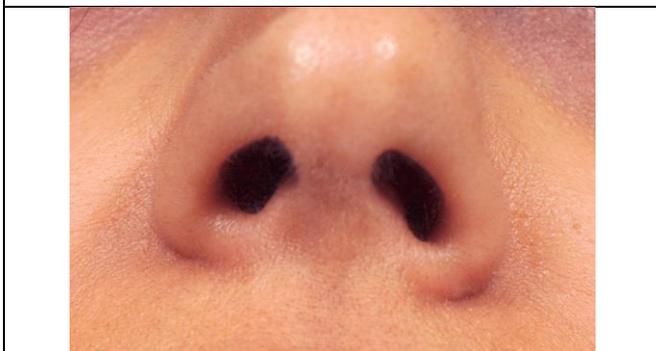


Figure 3. Melanin + Zinc Oxide Sunscreen (no sunburn)

Two New Sunscreens

Two sunscreens, one with zinc oxide and the other with zinc oxide and black sesame melanin, were prepared and tested. Both sunscreens were found to prevent Phase I, II, and III sunburn.

How Moondust Cosmetic Can Help



Moondust Natural Facial Base with sunscreen is designed to help protect people with sensitive skin from sunburn due to routine exposure to **UV**. It can be used safely every day, all year round even under make-up because it contains *no harsh or harmful chemicals*. Our special fragrance-free formula may be suitable for people with certain allergies and skin conditions like acne.

To purchase, visit <http://moondustCosmetics.com>