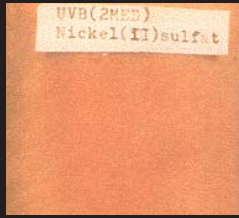
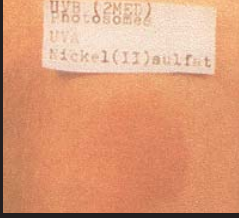


Barnet Products Corporation 140 Sylvan Avenue Englewood Cliffs NJ 07632  
Tel 201 346 4620 Fax 201 346 4333 Web barnetproducts.com

## Photosomes



- Light-Activated Marine Enzyme Activity
- Immune Protection Functionality
- Repairs Sun-Induced Damage to DNA



← UV erythema and suppression of immune response

Photosomes prevent UV-B erythema and restore immune response →

### DESCRIPTION

Photosomes is photolyase in multilamellar liposomes, derived from photosynthetic plankton called *Anacystis nidulans*. The liposomes (200 nanometers in size) are formed from pure egg phospholipids.



### PROPERTIES

Comparable to chlorophyll, which also requires light activity, the mode of activation of Photolyase absorbs visible light to directly cleave and reverse damage caused by shorter wavelength UV. Twelve human volunteers who have applied Photosomes to UV-exposed skin had about a 52% reduction in UV damage.

Photosomes protects the cells of the skin's immune system. In vitro tests demonstrate that Photosomes reduces the secretion of Interleukine -6 ( IL-6). Normal skin keratinocytes respond to the master immunity molecule interferon by displaying an important adhesion molecule (ICAM-1) on their surface. This adhesion molecule is necessary for proper communication with leukocytes. In UV exposed skin, ICAM-1 is not displayed; keratinocytes don't respond to interferon. After treatment with Photosomes, keratinocytes react appropriately and produce ICAM-1. In vivo tests were performed to demonstrate the reduction of "stress signals" by Photosomes. All these tests confirm the immuno-protecting capacity of Photosomes.

### FORMULATION

Photosomes is a translucent suspension with a pH level of 7-8. Suggested use level is 1%. It is compatible with hydrogels, carbomers, emulsifiers, triethanolamine, dimethicone, sunscreens and sun blocks and phenoxy-ethanol. It is incompatible with 5% ethyleneglycol, glycerin or alcohol, anionic or ionic detergents and surfactants. Preservative: 1% Phenoxyethanol.

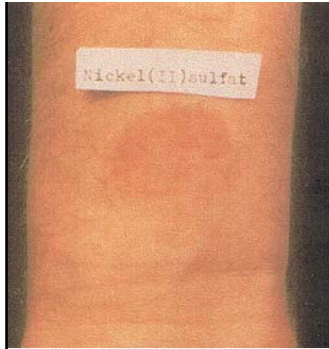
### LEGISLATION

INCI Name: Plankton Extract and Lecithin  
CAS: 37290-70-3

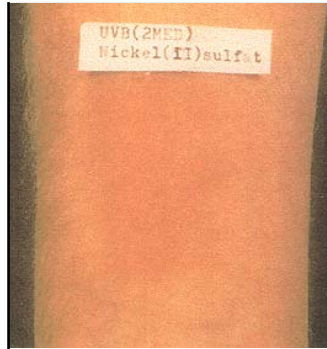
JMHW:  
EINECS: 293-445-7

# Photosomes

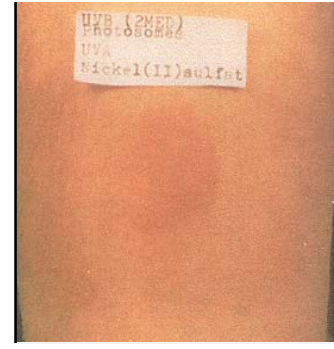
## PHOTOSOMES REDUCES STRESS SIGNALS



Nickel sulfate wheal and flare immune response



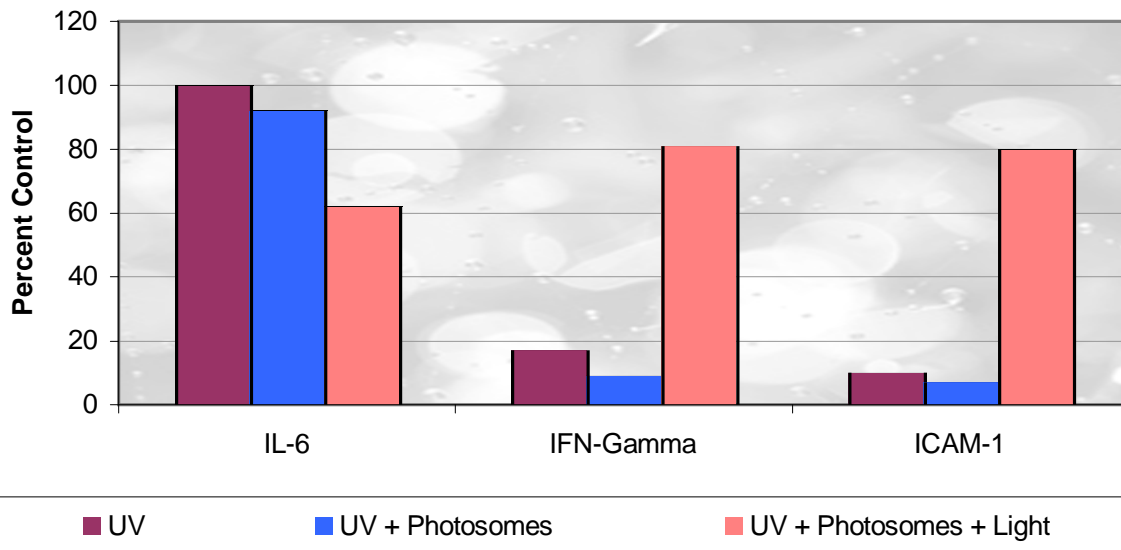
UV erythema and suppression of immune response



Photosomes prevent UV-B erythema and restore immune response

Photosomes was used at 1%. Pictures were taken 24 hours after UV-B exposure.

## PHOTOSOMES REDUCES CYTOKINE RELEASE



Light-activated Photosomes reduces cell damage (dimers or CPD's) and the release of IL-6.