Neopein®

US Patent #7,214,392

All Natural Preservative for Multiple Personal Care & Cosmetic Applications, Crémes, Shampoos, Soaps, Lotions, Etc.

An ideal alternative to synthetic preservatives. Proprietary blends of botanical extracts.
Broad spectrum antimicrobial activity.

Appearance: *liquid*
Color: *amber yellow*
Aroma: *characteristic, aromatic*
Efficacy: *anti-bacterial and anti-fungal*
Recommended use level: 0.55%
Recommended temperature range: 20°- 30°C (68°- 80°F)
Method of Manufacturing: *extraction of the proprietary mixture of herbs by *Bio-Chelation® & blending*
Solvent for Extraction: *alcohol*
Additives: *none*
Solubility: *soluble in oils, fats and non-polar solvents*
Recommended storage: *store in a cool dry place, protected from light, away from excessive heat or freezing temperatures*
Shelf Life: *24 months unopened*

INCI Name:

Origanum Vulgare (Oregano) Leaf Extract	CAS No: 84012-24-8
Thymus Vulgaris (Thyme) Extract	CAS No: 84929-51-1
Olea Europaea (Olive) Leaf Extract	CAS No: 8060-29-5
Rosmarinus Officinalis (Rosemary) Leaf Extract	CAS No: 84604-14-8
Lavandula Angustifolia (Lavender) Flower Extract	CAS No: 90063-37-9
Hydrastis Canadensis (Goldenseal) Root Extract	CAS No: 84603-60-1

Specifications:

RESIDUE: <10.0% (16 hrs.@ 105°C)
REFRACTIVE INDEX: 1.4200-1.6100 (USPXXIV <841> @ 25°C)
SPECIFIC GRAVITY: 0.9100-0.9990 (USPXXIV <841> @ 25°C)

Analysis:

RESIDUE: N/A
REFRACTIVE INDEX: N/A
SPECIFIC GRAVITY: N/A

*Bio-Chelation® is a registered trademark of Bio-Botanica®, Inc.
Bio-Chelation® is a proprietary cold extraction process

BIO-BOTANICA® INC.

Neopein®

Safety Study

Test Sample: Neopein® 2.75% in MCT Oil
(Five times the Recommended Effective Concentration)

1. Evaluation for eye irritation potential utilizing the HET-CAM test, as modified by Kemper and Luepke*. The Chorioallantoic Membrane (CAM) of the hen's egg is more sensitive to liquid irritants than is the rabbit's eye.

   Controls: Johnson's Baby Shampoo (Moderately irritating) and Head & Shoulders Shampoo (Severely irritating)

   Results: The sponsor-submitted samples of Neopein® would have practically no ocular irritation potential in vivo.

2. 48 Hour Patch Test to determine by epidermal contact the primary irritation potential of a test material.

   Results: The Number of healthy subjects used in the study = 53.
   Ages 16 - 79 years. Human males and females.
   Mean score after 48 hours = 0
   Mean score after 72 hours = 0

   Evaluation Key:
   0 = No visible reaction.
   + = Barely perceptible or Spotty Erythema.
   1 = Mild Erythema covering most of the site.
   2 = Moderate Erythema, possible presence of mild Edema.
   3 = Marked Erythema, possible Edema.
   4 = Severe Erythema, possible Edema, Vesiculation, Bullae and/or Ulceration.

   Conclusion: Under the conditions of this study, the sponsor-submitted samples of Neopein®, did not show any potential of dermal irritation. It is concluded that Neopein® had no eye irritation potential a 5 times the effective concentration.

*Kemper, F.H. & Luepke, N.P. (1986). The HET-CAM test : An Alternative to the Draize test, FD Chem. Toxic. 24, pp495-496.

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