

ViaFerm[®] White Shiitake

Description

ViaFerm[®] White Shiitake is a biotechnological derived extract from shiitake mushroom (*Lentinus edodes*) ferment. Widely cultivated for its wonderful flavor in gourmet cooking, the Shiitake mushroom, *Lentinus edodes*, is a well-known edible mushroom. It also has applications outside the food industry. *Lentinus edodes* is extensively researched as a source for biocatalytic enzymes such as laccase, cellulase, and ligninolytic peroxidases which are used to break down cellulose and lignin in the paper pulp industry. The fermentation broths of *Lentinus edodes* have also been useful in bioremediation of textile dye effluent streams. The remarkable biocatalytic potential of *Lentinus edodes* fermentations provided inspiration to further investigate the utility of Shiitake mushroom ferment in the cosmetics industry.

As part of their normal living processes, certain microbes can perform chemical conversions on specific molecules via enzymatic activity. Instead of using harsh chemical processing, microbial fermentations are now used to carry out chemical conversions. For instance, cellulose can be disintegrated to simpler sugars that can then be used for bioethanol. The tight bonds between cellulose and lignin can be also broken to provide cellulose for paper production. *Lentinus edodes* fermentations are a proven source for such enzymatic activity. Most interestingly, *Lentinus edodes* ferments have been useful in the textile industry. *Lentinus edodes* fermentation of industrial textile dye waste stream can break down the harmful dyes and thus reduce the color of the effluent. Since a *Lentinus edodes* ferment can break down synthetic pigments, it follows that the ferment might also degrade the natural pigment melanin. Melanin is structurally like lignin and contains carbon-carbon, carbon-oxygen, and oxygen-hydrogen bonds (C-C, C-O and O-H) that are available for modification. Catalytic modification of these bonds will alter melanin's natural chromophore, resulting in a less intense overall colour.

Efficacy

- lightens the skin
- reduces age spots
- degrades melanin
- reduces inflammations

Appearance

light yellow amber liquid

INCI

Lentinus Edodes Mycelium Extract

Registration

CAS-No.....-/-

EC-No.....-/-



Nature needs no cosmetics,
but cosmetics need nature

ViaFerm[®] White Shiitake

Preservatives / Stabilizers

preservatives:

phenoxyethanol.....0.5 %

caprylyl glycol.....0.5 %

stabilizers.....none

Characteristics

solid content.....0.5 - 2.5 %

specific gravity.....1.000 - 1.040 g/ml

refractive index.....1.330-1.340

Application

daily cosmetic products

creams and lotions

face masks

gels and ampoules

body care

Application concentration

skin care formulations.....2 %

Incorporation

ViaFerm[®] White Shiitake is soluble in water. It should be added at the end of formulation in the cool down phase.

Toxicology

non hazardous in normal use concentration

Storage & Shelf life

ViaFerm[®] White Shiitake should be stored in original sealed containers in a dry and light protected place at temperatures between 10 - 25°C.

In closed original containers the shelf life is 12 months.