

Organic Preservative 7000

Groundbreaking Research in Preservatives of Cosmeceuticals

This product is an outcome of consumer experiences that demonstrate true differentiations. If applied properly, it will allow formulators to design chemical free formulations, thus enhancing the value of cosmeceuticals.

- ✓ Natural Preservative / Antioxidant
- ✓ 100% Organic
- ✓ Internally Stabilized



Organic Preservative 7000

Microorganisms cause spoilage of cosmetic ingredients, resulting in a reduction of the quality and quantity of the final product. Some spices and herbs have biologically active substances that inhibit the growth of pathogenic microorganisms, thus enhancing the shelf life of the product they are added to. Antioxidants help to enhance the shelf life of oils, by inhibiting lipid peroxidation and other processes. These substances protect the oil from exposure to high temperatures, sunlight and other conditions that damage it.

Why Organic Preservative 7000

The use of plant-based natural antioxidants is becoming more and more common in the cosmetic industry, since these substances are believed to possess anti-carcinogenic potential and other health-promoting effects, including anti-inflammatory properties and antimicrobial activity. Currently parabens are the most widely used preservatives in cosmetic products. These compounds are used to prevent the growth of bacteria and molds, but they can also pose a health risk to the consumer.

Why Organic Preservative 7000

Therefore, there is a growing interest in searching for paraben-free alternatives. In order to replace these substances, the problem was the availability of a full spectrum product.

Organic Preservative 7000, is an oil solution of natural antioxidants with anti-microbial properties. It is a synergistic mixture of the extract from best quality dry leaves of organic Rosemary (*Rosmarinus officinalis*), combined with the organic volatile oil steam-distilled from the best quality dried fruits of fennel (*Foeniculum vulgare*).

Internally Stabilized

Organic Preservative 7000, is produced using our unique Internally Stabilization (I.S.) technology, making the final product more resistant to oxidation and degradation, by using the natural antioxidant properties of Rosemary.

Rosemary Extract



The leaves of rosemary have excellent anti-oxidant properties. These properties which come from high content of diterpenes, particularly Carnosic Acid and Carnosol. Rosemary has other beneficial components with anti-inflammatory and anti-carcinogenic, such as Epirosmanol, Isorosmanol, Luteolin, Ursolic acid, Rosmarinic acid and Caffeic acid. Other health benefits of rosemary include anagestic, anti-ulcerogenic and hepatoprotective activity. It also has strong anti-bacterial properties.

Fennel Oil



The essential oil of fennel is obtained through the steam distillation of crushed fennel seeds. The seeds of this herb have medicinal properties that come from the various components of the essential oil of fennel, including Alpha Pinene, Anisic Aldehyde, Cineole, Fenchone, Myrcene, Limonene, Methyl Chavicol and Trans Anthole. Fennel essential oil is well-known due to its strong anti-bacterial and anti-fungal activity. It also has anti-oxidant, cytotoxic, anti-inflammatory, hypotensive, hepatoprotective, antithrombotic and anti-mutagenic activity.

Properties

Organic Preservative 7000 is used as a very strong preservative, protecting vegetable oils, against oxidation and loss of antioxidants. Its powerful antimicrobial properties will also help to inhibit the growth of pathogenic microorganisms, avoiding spoilage of cosmetic ingredients.

Recommended dosage is minimum 5000 ppm. At recommended level of dosage, the final product has no characteristic taste, smell, colour or odour, generally associated with Rosemary extracts.

Organic Preservative 7000 has been tested, by adding 5000 ppm to a NOP certified organic lotion with an aloe/water content higher than 50%. This mixture was tested against a panel of microorganisms, including several species of bacteria and pathogenic fungi.

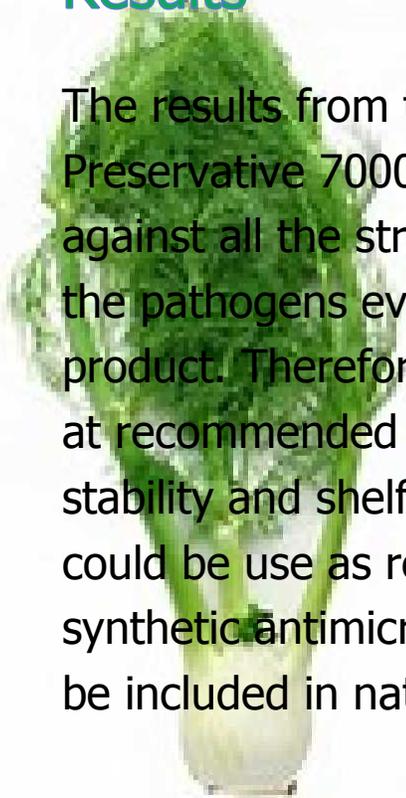




Results

ORGANISM	<i>Pseudomonas aeruginosa</i>	<i>Staphylococcus aureus</i>	<i>Candida albicans</i>	<i>Aspergillus niger</i>	<i>Escherichia coli</i>
ATCC No.	9027	65380	10231	16404	8739
Incubation temperature (°C)	37	37	37	37	37
Density (cfu/mL)	106	1010	108	107	10 ⁹
Volume added, mL	0,25	0,25	0,25	0,25	0,25
Total No. added	2,5 x 10 ⁸	2,5 x 10 ⁹	2,5 x 10 ⁷	2,5 x 10 ⁶	2,5 x 10 ⁸
No. added mL ⁻¹ of product	107	108	106	105	10 ⁷
Counts after 2 days	5,7 x 10 ⁵	5.6 x 10 ⁵	107	107	10 ⁷
Log reduction	0	>1	0	0	0
Counts after 7 days	<1000	<1000	<1000	<1000	<1000
Log reduction	>4	>4	>3	>3	>4
Counts after 14 days	<1000	<1000	<1000	<1000	<1000
Log reduction	>3	>5	>4	>2	>3
Counts after 28 days	<1000	<1000	<1000	<1000	<1000
Log reduction	>5	>3	>1	>2	>3
Product passed	Yes	Yes	Yes	Yes	Yes

Results



The results from this challenge test show that Organic Preservative 7000 has considerable antimicrobial activity against all the strains tested. It has inhibited the growth of all the pathogens evaluated, enhancing the shelf life of the product. Therefore, the addition of Organic Preservative 7000 at recommended level of dosage will increase dramatically the stability and shelf life of cosmetic products. This natural blend could be use as replacement for chemical additives and synthetic antimicrobial, enabling Organic Preservative 7000 to be included in natural and organic products.

Conclusions

In conclusion, our new Organic Preservative 7000 can be successfully applied for natural and organic products using it as an organic highly powerful antioxidant and preservative.





PRODUCT SPECIFICATIONS

Organic Preservative 7000

INCI Names; Helianthus Annuus Seed Oil, and Rosmarinus officinalis leaf oil, and Foeniculum Vulgare Fruit Oil

CAS #'s: 8001-21-6, and 84604-14-8, and 84625-39-8

EINECS #'s: 232-273-9, and 283-291-9, and 283-414-6

Organic Preservative 7000 is an oil solution of natural antioxidants with anti-microbial properties. This natural antioxidant and preservative product is a synergistic mixture of the extract from best quality dry leaves of organic Rosemary (*Rosmarinus officinalis*), combined with the organic volatile oil steam-distilled from the best quality dried fruits of fennel (*Foeniculum vulgare*). Carefully chosen top quality organic vegetable oil has been used as the carrier. Recommended dosage of Organic Preservative 7000 is minimum 5000 ppm. At recommended level of dosage, the final product has no characteristic taste, smell, color or odor generally associated with Rosemary extracts.

SPECIFICATION	TYPICAL RESULT
Appearance	Dark yellow to brownish oil
Odor	Characteristic
Water	0.5 max

Uses in Cosmetics

Organic Preservative 7000 is used as a very strong preservative, protecting vegetable oils as well as animal fats, against oxidation and loss of antioxidants. Its powerful antimicrobial properties will also help to inhibit the growth of pathogenic microorganisms, avoiding spoilage of both food and cosmetic ingredients. Therefore, the addition of Organic Preservative 7000 at recommended level of dosage will increase dramatically the stability and shelf life of both food and cosmetic products. This natural blend could be used as replacement for chemical additives and synthetic antimicrobial agents, enabling Organic Preservative 7000 to be included in natural and organic products.

Store in cool (preferable below 10° C), dry location, away from light in unopened container. Users can expect a 5 Years shelf life with proper storage in unopened containers.

The above specifications are offered in good faith, and are accurate to the best of our knowledge; however no guarantee or warranties are offered or implied. It is recommended that your own laboratories perform their own analysis to ensure that the product specifications and results meet your specific requirements, and those of your local and national governmental standards.

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