

NatPro 9000

Natural Preservative

Potent antimicrobial active

Multifunctional

Plant-based



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**GLYCERYL CAPRYLATE, GLYCERYL CAPRATE,
GLYCERYL LAURATE, CAPRYLHYDROXAMIC ACID**

NatPro 9000 is a multi-functional, broad-spectrum natural preservative used for the formulation of cosmetic products. It also functions as a co-emulsifier and refatting active.



Natural Preservative



Natural co-emulsifier & superfatting active



Efficacy at pH range of 4.0 - 7.0



Light color and low odor

THIRD PARTY LABORATORY TEST RESULT

DETERMINATION OF MINIMUM INHIBITION CONCENTRATION

CONCENTRATION	<i>BACILLUS SP.</i> (From Cosmetics)	<i>S. AUREUS</i>	<i>E. COLI</i>	<i>K. PNEUMONIAE</i>	<i>E. AEROGENES</i>	<i>P. AERUGINOSA</i>	<i>C. ALBICANS</i>
2.00%	-	-	-	-	-	-	-
1.50%	-	-	-	-	-	-	-
1.00%	-	-	-	-	-	-	-
0.70%	-	-	-	-	-	-	-
0.50%	-	-	-	-	+	+	-
0.00%	+	+	+	+	+	+	+

Formulators may increase **NatPro 9000** dosage to achieve a certain product quality and to further lessen the microbial susceptibility of the formulation. But regardless of the desired final product attributes, formulators may start at 0.70% **NatPro 9000** dosage in the formulation to ensure effective product preservation.

PRESERVATIVE EFFICACY TEST

TEST ORGANISM	INITIAL COUNT (CFU/g)	VIABLE PLATE COUNT, COLONY-FORMING UNITS (CFU/G)			
		DAY 7	DAY 14	DAY 21	DAY 28
<i>Escherichia coli</i> ATCC 25922	3.4×10^6	<10	<10	<10	<10
<i>Enterobacter aerogenes</i> ATCC 35029	2.1×10^6	<10	<10	<10	<10
<i>Pseudomonas aeruginosa</i> ATCC 27853	2.7×10^6	<10	<10	<10	<10
<i>Staphylococcus aureus</i> ATCC 6538	2.7×10^6	<10	<10	<10	<10
<i>Candida albicans</i> ATCC 10231	1.8×10^5	<10	<10	<10	<10
<i>Aspergillus niger</i> UPCC 4219	4.6×10^4	1.4×10^2	<10	<10	<10

When challenged with a cocktail of different test microorganisms in a body butter formulation at 1.5%, **NatPro 9000** was able to decrease the number of test organisms from Day 0 to Day 28. It is an effective preservative since:

A. It showed more than 3 log reduction from the initial count at 14th day, and no increase from 14th day to 28th day of bacterial load.

B. It showed no increase in yeast and molds count from the initial to the 28th day.

NatPro 9000 can therefore be used as an effective preservative in USP category 2 products, and even for category 1 products.