



LABORATOIRES
SÉROBIOLOGIQUES

Division de Cognis France

ELESTAB® 4112

PRESERVATIVE SYSTEM FOR EMULSIONS

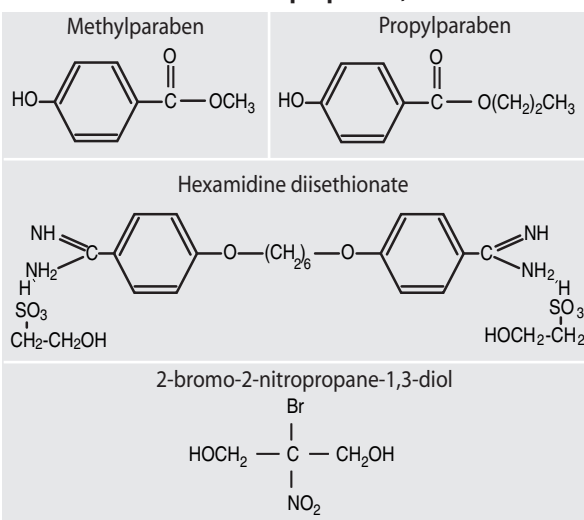
DEFINITION / COMPOSITION

ELESTAB® 4112 is a hydrosoluble preservative system designed for microbiological stabilization of cosmetic preparations.

Components:

ELESTAB® 4112 is a mixture of:

- 2 parabens: **methylparaben** and **propylparaben**,
- 1 aromatic diamine: **hexamidine diisethionate**,
- 1 alcohol: **2-bromo-2-nitropropane-1,3-diol**.



ANTIMICROBIAL PROPERTIES

ELESTAB® 4112 has a broad spectrum microbiostatic and microbicidal activity against **bacteria** (Gram + and Gram -), **fungi** and **yeasts**.

Minimum Inhibitory Concentration (MIC) and Minimum Microbicidal Concentration (MMC) of ELESTAB® 4112 against a range of bacteria, fungi and yeasts.

Strains	ELESTAB® 4112 Concentration (µg/ml)	
	MIC	MMC
Bacteria		
<i>Staphylococcus epidermidis</i> NCIMB 8853	16	32
<i>Staphylococcus aureus</i> NCTC 10788	4	500
<i>Lactobacillus brevis</i> NCIMB 11973	2	8
<i>Lactococcus lactis</i> NCIMB 6681	8	64
<i>Corynebacterium xerosis</i> NCTC 8481	1	125
<i>Escherichia coli</i> NCIMB 8545	125	500
<i>Enterobacter cloacae</i> NCIMB 10101	250	500
<i>Klebsiella aerogenes</i> NCTC 7427	125	500
<i>Klebsiella pneumoniae</i> NCIMB 10341	125	500
<i>Proteus vulgaris</i> NCIMB 4175	500	1,000
<i>Pseudomonas fluorescens</i> ATCC 12842	125	250
<i>Pseudomonas aeruginosa</i> NCIMB 8626	250	500
<i>Salmonella typhimurium</i> NCIMB 10258	500	500
<i>Serratia marcescens</i> NCIMB 11851	500	>1,000
Fungi		
<i>Aspergillus niger</i> IMI 149007	2	2
<i>Penicillium pinophilum</i> IMI 87160	8	8
Yeasts		
<i>Candida albicans</i> NCPF 3179	125	125
<i>Saccharomyces cerevisiae</i> NCPF 3275	250	500

COSMETIC USE

ELESTAB® 4112 is a preservative system for cosmetic products such as emulsions (creams, lotions...), masks and makeup products.

DOSAGE / SOLUBILITY / MODE OF INCORPORATION

1. Dose of use: 0.30 to 0.40%.

The relevant antimicrobial protection of the cosmetic product has to be checked by a challenge test.

2. Solubility: ELESTAB® 4112 is soluble in water (80°C) and insoluble in oils and fats.

3. Mode of incorporation: ELESTAB® 4112 is introduced under stirring into the aqueous phase of the emulsion, previously heated to 80°C.

COMPATIBILITY / INCOMPATIBILITY

As ELESTAB® 4112 contains hexamidine diisethionate, it is slightly cationic and it forms complexes with anionic raw materials such as acrylic polymers, proteins, amino-acids... (opalescence or turbidity).

The suitable pH is between 3 and 7, avoid high alkaline medium.

ANALYTICAL CHARACTERISTICS

1. Aspect: white fine powder, with a weak odor.

2. Specifications: upon request.

TOLERANCE

Good.

STORAGE

In its original packaging, at 15 - 25°C.

REGULATORY STATUS

Approved: USA, EC, Australia, Canada.

INCI NAME

Methylparaben (and) Hexamidine Diisethionate (and) 2-Bromo-2-nitropropane-1,3-diol (and) Propylparaben.

MANUFACTURER / SUPPLIER

Laboratoires Sérobiologiques, division de Cognis France.