## technical information



consumer specialties

ashland.com

page 1 of 2

**BULLETIN VC-5704-1** 

# euxyl<sup>™</sup> pe 9010 preservative

a cosmetic preservative blend that offers clear advantages; the addition of ethylhexylglycerin reduces the interfacial tension at the cell membrane of microorganisms and improves the antimicrobial activity

product benefits	<b>INCI</b> declaration	CAS No
<ul> <li>strong broad spectrum efficacy</li> </ul>	Phenoxyethanol	122-99-6
o mild, liquid blend	Ethylhexylglycerin <sup>1)</sup>	70445-33-9
o ideal solution for transparent gels		
<ul> <li>stable to hydrolysis, temperature and pH</li> </ul>		
o microbiome gentle		

<sup>1)</sup> stabilized with synthetic alpha-tocopherol

technical product properties

recrimed product properties		
color	nearly colorless	
form	liquid	
odor	characteristic	
density (20 °C)	1.087 - 1.092 g/ml	
refractive index (20 °C)	1.522 - 1.534	
boiling point/boiling range	> 100 °C	
flash point (ISO 2719)	> 100 °C	
flow time (DIN 53211 - 20 °C)	< 15 s	
viscosity (Rheo WIN RS 600 - )	28 mPa*s	
Water solubility (20 °C)	10 g/l	
Water solubility (60 °C)	15 g/l	
foaming characteristics (DIN 53902)	non foaming (1.0 % in water)	
color index (Hazen)	< 50	
natural ingredient acc. ISO 16128	0%	

### formulation guidelines

in organic
atibility with ccinates, nay lead to
S.
) ) Y



discoloration	In general euxyl™ pe 9010 preservative displays good compatibility with cosmetic ingredients. No discoloration has been observed.
maximum use temperature	> 100 °C

<sup>&</sup>lt;sup>2)</sup> For the determination of the optimum dosage we recommend a preservation test, as the efficacy is highly influenced by the other ingredients of a finished formulation. The staff of Ashland's microbiological laboratories will be pleased to give customers the appropriate support.

global approvals

<u> </u>			
use-concentration	leave-on	rinse-off	Recommended use-
Ashland recommendation	0.5 - 1.0 %	0.5 - 1.0 % <sup>3)</sup>	concentrations are
EU Cosmetics Regulation	max. 1.11 %	max. 1.11 %	based on average
CIR (USA)	max. 1.11 %	max. 1.11 %	active content. Please
ASEAN Cosmetic Directive	max. 1.11 %	max. 1.11 %	pay attention to the
TSSC 2015 (China)	max. 1.11 %	max. 1.11 %	corresponding
MERCOSUR	max. 1.11 %	max. 1.11 %	certificate of analysis.

<sup>3)</sup> A high load of ethoxylated surfactants result in a loss of efficacy.

### regional availability:

For country-specific availability please check ashland.com or contact your local sales representative.

### microbiological efficacy

Euxyl™ pe 9010 preservative is equally effective against bacteria, yeasts and mold. For euxyl™ pe 9010 preservative to perform effectively in destroying organisms in products already contaminated, a minimum contact time of 48 hours is necessary. Good production hygiene, as well as the use of raw materials with low microorganism levels as a result of correct raw material control, are of course vital prerequisites for the production of microbiologically faultless finished products.

#### MIC

The efficacy of the product has been tested against the following microorganisms according to VAH (Association for Applied Hygiene). Determination of the minimum inhibitory concentration in the serial dilution test produced the following values (MIC in % of the product):

bacteria (gram-negative)	MIC	bacteria (gram-positive)	MIC	yeasts	MIC
Enterobacter gergoviae	0.50	Staphylococcus aureus	0.50	Candida albicans	0.25
Escherichia coli	0.50	Staphylococcus epidermidis	0.50		
Klebsiella pneumoniae	0.25			molds	MIC
Pseudomonas aeruginosa	0.50			Aspergillus niger	0.25
Pseudomonas fluorescens	0.25			Penicillium pinophilum	0.25
Pseudomonas putida	0.50				

# material compatibility<sup>4)</sup>

maieriai companismi,			
criteria	compatible	to be avoided	
concentrate	stainless steel, brass, copper, zinc, aluminium, polyethylene, PVC (hard), EPDM, PTFE, POM, polyamide (PA 6), fluorinated rubber (FKM)	PC, PMMA, ABS, sealants and plastics other than mentioned	
aqueous dilution (1.0 %)	no significant difference to water	water incompatible materials	

### 4) Compatibility has to be proved in each case.

#### transport & storage

category	facts
dangerous goods	no
UN number	-
packaging group	
package sizes	10 kg, 200 kg, 1000 kg
shelf life	36 months
storage	Protect from frost, heat and sunlight. Store at room temperature in the original container.

