

BULLETIN VC-5702-3

euxyl™ k 712 preservative

liquid preservative for personal care products, with strong, broad-spectrum effectiveness against bacteria, yeast and mold which is compliant with many natural certification requirements

product benefits

- o strong broad spectrum efficacy
- o suitable for certified natural cosmetics
- o mild, liquid blend
- o fully effective in anionic, cationic and non-ionic systems
- o cost effective

INCI declaration

Sodium Benzoate
 Potassium Sorbate
 Aqua

CAS No

532-32-1
 24634-61-5
 7732-18-5

technical product properties

color	colorless - brownish
form	liquid
odor	characteristic
density (20 °C)	1.166 - 1.185 g/ml
refractive index (20 °C)	1.436 - 1.441
boiling point/boiling range	> 100 °C
flash point (ISO 2719)	> 100 °C
flow time (DIN 53211 - 20 °C)	ca. < 15 s
Viscosity (Rheo WIN RS 600 -)	2 mPa*s
Water solubility (20 °C)	in all proportions
foaming characteristics (DIN 53902)	non foaming (2.0 % in water)
vapor pressure (20 °C)	ca. 25 hPa
natural ingredient acc. ISO 16128	55%

formulation guidelines

recommended use levels ¹⁾	0.5 - 1.5 %
general information	Euxyl™ k 712 preservative is fully effective both in anionic as well as cationic and non-ionic systems.
solubility(ies)	Fully soluble in water and in most polar organic solvents.
compatibility with surfactants	Euxyl™ k 712 preservative proved to have good compatibility with anionic surfactants such as sulphates, ether sulphates and sulphosuccinates, as well as with non-ionogenic surfactants.
compatibility with sulphite ions	Euxyl™ k 712 preservative exhibits no interaction with sulphite ions.

discoloration	Euxyl™ k 712 preservative has no color stability. The concentrate is a clear colorless until brownish liquid with tendency to discoloration. When used in the cosmetic preparation it doesn't lead to further discoloration as long as the formulation remains acidic.
recommended use pH range	max. 5.5 (The efficacy of euxyl™ k 712 preservative depends on the pH-value. The efficiency is increased by reducing the pH value.)
maximum use temperature	When using euxyl™ k 712 preservative prolonged heating periods > 80 °C (max. 4 hours) should be avoided.
additional advice	The alkalinity of euxyl™ k 712 preservative can lead to an increase in pH value. In all cases the pH value of the finished product must be checked at the end of the production process, and if necessary adjusted. The measurement of a w/o emulsion is problematic, in this case the measurement must be performed in the water phase.

¹⁾ 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

use-concentration	leave-on	rinse-off	Recommended use-concentrations are based on average active content. Please pay attention to the corresponding certificate of analysis.
Ashland recommendation	0.5 - 1.5 %	0.5 - 1.5 %	
EU Cosmetics Regulation	max. 1.96 %	max. 5.35 %	
CIR (USA)	max. 3.33 %	max. 3.33 %	
ASEAN Cosmetic Directive	max. 1.96 %	max. 5.35 %	
TSSC 2015 (China)	max. 1.96 %	max. 1.96 %	
MERCOSUR	max. 1.96 %	max. 5.35 %	

regional availability:

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

microbiological efficacy

Euxyl™ k 712 preservative is equally effective against bacteria, yeasts and mold. For euxyl™ k 712 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.

material compatibility²⁾

criteria	compatible	to be avoided
concentrate	stainless steel, polyethylene, PVC (hard), PTFE, EPDM, fluorinated rubber (FKM)	PC, PMMA, ABS, sealants and plastics other than mentioned
aqueous dilution (1.5 %)	no significant difference to water	water incompatible materials

transport & storage

category	facts
dangerous goods	no
UN number	-
packaging group	
package sizes	10 kg, 200 kg, 1000 kg
shelf life	24 months
storage	Protect from frost, heat and sunlight. Store at room temperature in the original container.

²⁾ Compatibility has to be proved in each case.

More details regarding handling, toxicity and labelling are available in the Safety Data Sheet (SDS).