

CLIENT & SAMPLE INFORMATION

Client	Upgrade	Analysis Date	05/26/2026
Lot / Batch	BAC-202605	Product Name	Bacteriostatic Water
Preservative	Benzyl Alcohol 0.9%	Container	Glass Vial

This Certificate of Analysis certifies that the bacteriostatic water sample listed herein was tested for preservative content, sterility, and physicochemical properties in accordance with applicable USP/EP methods.

BENZYL ALCOHOL ASSAY (GC)

Parameter	Specification	Result	Status	Parameter	Specification	Result	Status
Appearance (Color)	Colorless	Colorless	PASS	GC Impurity 1	≤ 0.50%	< 0.01%	PASS
Appearance (Form)	Liquid	Liquid	PASS	GC Impurity 2	≤ 0.50%	ND	PASS
Benzyl Alcohol Content	0.9% +/- 10%	0.90%	PASS	Refractive Index (20C)	1.540 - 1.542	1.541	PASS
Purity (GC)	≥ 99.5%	99.9%	PASS	Overall Determination			PASS

Reference: CAS 100-51-6 | C₇H₈O | MW 108.14 g/mol | Method: Gas Chromatography per USP <621>

TESTING METHODOLOGY SUMMARY
Benzyl Alcohol Assay (GC)

The preservative content was quantified using Gas Chromatography per USP <621>. This method separates and measures benzyl alcohol concentration to verify the 0.9% w/v specification. Sample preparation involves dilution in appropriate solvent, followed by injection into the GC system equipped with a flame ionization detector (FID). Peak area is compared against certified reference standards to determine concentration. Impurity profiles are simultaneously assessed to ensure product purity meets pharmacopeial requirements.


ADDITIONAL QUALITY SCREENS

PH ANALYSIS	
Method	USP <791>
Specification	4.5 - 7.0
Result	5.5
Status	PASS

