

CLIENT & SAMPLE INFORMATION

Client Helix Research Co.

Analysis Date 05/22/2026

Lot / Batch batch 1

Product Name BAC Water (Standard)

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	$\leq 0.50\%$	< 0.01%	PASS
Appearance (Form)	Liquid	Liquid	PASS	GC Impurity 2	$\leq 0.50\%$	ND	PASS
Benzyl Alcohol Content	0.9% +/- 10%	0.90%	PASS	Refractive Index (20C)	1.540 - 1.542	1.541	PASS
Purity (GC)	$\geq 99.5\%$	99.9%	PASS	Overall Determination			PASS

Reference: CAS 100-51-6 | C_7H_8O | 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

