

CLIENT & SAMPLE INFORMATION

Client	LyoS Labs	Analysis Date	05/30/2026
Lot / Batch	2604-B26	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	≤ 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 | 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.

