



CLIENT & SAMPLE INFORMATION

Client

Next Level Research Labs

Analysis Date

06/02/2026

Lot / Batch

06012026BAC1

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
Appearance (Color)	Colorless	Colorless	PASS
Appearance (Form)	Liquid	Liquid	PASS
Benzyl Alcohol Content	0.9% +/- 10%	0.90%	PASS
Purity (GC)	≥ 99.5%	99.9%	PASS

Parameter	Specification	Result	Status
GC Impurity 1	≤ 0.50%	< 0.01%	PASS
GC Impurity 2	≤ 0.50%	ND	PASS
Refractive Index (20C)	1.540 - 1.542	1.541	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

ENDOTOXIN SCREEN

Method	LAL (USP <85>)
Limit	≤ 0.5 EU/mL
Result	Pass
Status	PASS

