LAB ALLEY
ESSENTIAL CHEMICALS

Certificate of Analysis

Product: Benzalkonium Chloride 50% Solution, NF Grade
Item Number: BZKNF50
CAS#: 8001-54-5
Grade: NF
Lot Number: 5002655/1.1
Manufacture Date: 12/22/2025
Expiration Date: 12/21/2028
Country of Origin: United States

Tested Property	Specification	Analysis
Appearance @ RT	Clear liquid, colorless or slightly yellow, having an aromatic odor	Pass
Total alkyl ammonium chlorides	50.0 ± 2.5 (MW 352) Wt. %	51.0 Wt. %
Ratio of alkyl components, wt/wt	C12 (≥40.0%)	69.5%
	C14 (≥20.0%)	25.0%
	C12 + C14 (≥70.0%)	94.5%
	C16 (As reported)	5.5%
Identification A	A white precipitate is formed	Passes
Identification B	Chloride <191>: Meets requirements	Passes
Identification C	An orange-red color is produced	Passes
Identification D	Sample corresponds to standard	Passes
Identification: Supplemental (FT-IR)	Match standard	Passes
pH (10% aq.)	7.0 ± 1.0	7.4
Alcohol content	Does not contain alcohol	Passes
Impurity A: Amines and amine salts	No perceptible odor	Passes
	0.1 mmol/g (5.0 mL) Maximum	0.077 mmol/g (3.84 mL)
Impurity B: Benzyl alcohol, wt/wt	≤0.5%	0.001%
Impurity C: Benzaldehyde, wt/wt	≤0.15%	Not detected at 0.0001%
Impurity D: Benzyl chloride, wt/wt	≤0.05%	Not detected at 0.0001%
Acidity or Alkalinity	<0.5 mL 0.1N HCl or 0.1N NaOH	0.05 0.1N HCl
Microbial Enumeration	USP 60 B cepacia complex	Negtive

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USP 61 Aerobic Plate Count <10 cfu/g	Passes
USP 61 Yeast and Mold <10 cfu/g	Passes
USP 62 Candida albicans	None Detected
USP 62 Aspergillus brasiliensis	None Detected
USP 62 Bile-tolerant Gram-Neg	None Detected
USP 62 Clostridia sp.	None Detected
USP 62 Escherichia coli	None Detected
USP 62 Staphylococcus sp.	None Detected
USP 62 Pseudomonas aeruginosa	None Detected
USP 62 Salmonella sp.	None Detected

Store in a cool, dry, and well-ventilated environment.

Benzalkonium Chloride 50% Solution, NF Grade

Note: The information and recommendations of Lab Alley concerning this product are based upon laboratory tests and experience. To the best of our knowledge and belief these are true and accurate, however Lab Alley assumes no obligation or liability for the information in this document. Since conditions of actual use are beyond our control, any recommendations or suggestions regarding merchantability and fitness for particular purposes are made without warranty, expressed or implied.

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