

Certificate of Analysis

Product: Benzalkonium Chloride 50% Solution

Item Number: BZKNF50

Grade: USP/NF

Lot Number: 5001265/1.1

Manufacture Date: 02/06/2025

Expiration Date: 02/05/2028

Country of Origin: United States

Tested Property	Specification	Analysis
Assay, Total alkyl ammonium chloride	47.5 -52.5 wt%	50.0
Description	Clear liquid to slightly yellow	Clear Liquid
Odor	Slightly aromatic odor	Aromatic odor
Identification A	A white precipitate is formed	Passes
Identification B (Chloride)	To pass the test	Passes
Identification C	Orange-Red color is produced	Passes
Identification D	Retention time corresponds to standard	Passes
Alkyl Chain C12	$\geq 40.0\%$	68.5
Alkyl Chain C14	$\geq 20.0\%$	26.3
Alkyl Chain C12 + C14	$\geq 70.0\%$	94.8
Alkyl Chain C16	As reported, %	5.0
Limit of Amine and Amine Salts	No Perceptible odor	Passes
Limit of Amine and Amine Salts	Max 5.0ml, corresponding to $<0.1\text{mmol/g}$	4.55 ml
Alcohol Content if added	None Added	None detected
Benzyl Alcohol	$\leq 0.5\%$	0.001
Benzaldehyde	$\leq 0.15\%$ None Detected @ 0.0001% limit	
Chloromethyl Benzene	$\leq 0.05\%$ None Detected @ 0.0001% limit	
Acidity or Alkalinity	$<0.5\text{ml } 0.1\text{N HCL or } 0.1\text{N NaOH}$	0.05ml 0.1N HCl
Microbial Enumeration	USP61 Aerobic Plate count $<10\text{cfu/g}$	Passes

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	USP61 Yeast & Mold <10cfu/g	Passes
	USP62 candida albicans	None Detected
	USP62 Aspergillus brasiliensis	None Detected
	USP62 Bile Tolerant Gram-Neg.	None Detected
	USP62 Clostridia sp.	None Detected
	USP62 Escherichia coli	None Detected
	USP62 Staphylococcus sp.	None Detected
	USP62 Pseudomonas aeruginosa	None Detected
	USP62 Salmonella sp.	None Detected
	USP60B Cepacia Complex	Negative
pH of a 10% solution	6.0 - 8.0	7.7
FT-IR Identification	Match the standard	Passes

[Benzalkonium Chloride 50% Solution](#)

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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