

Certificate of Analysis

Product: Benzalkonium Chloride 50% Solution Item Number: BZKNF50 Grade: USP/NF Lot Number: 5000849/1.3 Manufacture Date: 11/29/2023 Expiration Date: 11/28/2026 Country of Origin: United States

Tested Property	Specification	Analysis
Assay, Total alkyl ammonium chlor	ide 47.5 -52.5 wt%	49.8
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	≥40.0 %	69.5
Alkyl Chain C14	≥20.0 %	25.0
Alkyl Chain C12 + C14	≥70.0 %	94.5
Alkyl Chain C16	As reported, %	5.4
Limit of Amine and Amine Salts	No Perceptible odor	Passes
Limit of Amine and Amine Salts	≤5.0ml, corresponding to ≤0.1mmol/g	y 3.1ml
Alcohol Content if added	None Added	None detected
Benzyl Alcohol	≤0.5 %	0.001
Benzaldehyde	≤0.15 % None Detected @ 0.0001% limit	
Chloromethyl Benzene	≤0.05 % None Detected @ 0.0001% limit	
Acidity or Alkalinity	≤0.1ml 0.1N HCL or 0.1N NaOH	0.02ml 0.1N HCl
Microbial Enumeration		
	USP61 Aerobic Plate count <10cfu/g	Passes

Phone: 512-668-9918, Fax: 512-886-4008, E-mail: Customerservice@laballey.com, <u>www.laballey.com</u>, 12501 Pauls Valley Road, Suite A, Austin, Texas 78737, © copyright: 2023 Lab Alley



USP61 Yeast & Mold <10cfu/g	Passes
USP62 canidida albicans	None Detected
USP62 Aspergilus 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
6.0 - 8.0	6.6

pH of a 10% solution

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.

This document was electronically issued and is therefore valid without a signature.

Phone: 512-668-9918, Fax: 512-886-4008, E-mail: Customerservice@laballey.com, <u>www.laballey.com,</u> <u>12501 Pauls Valley Road, Suite A, Austin, Texas 78737,</u> © copyright: 2023 Lab Alley