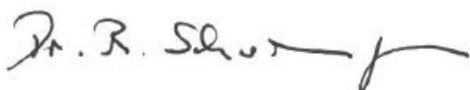


Certificate of Analysis

Product Name: Benzalkonium chloride
>= 95.0 % T
Product Number: 12060
Batch Number: BCCD5323
Brand: Sigma-Aldrich
CAS Number: 63449-41-2
Formula: C₆H₅CH₂N(CH₃)₂RCl (R=C₈H₁₇ to C₁₈H₃₇)
Formula Weight:
Quality Release Date: 07 JUL 2020

TEST	SPECIFICATION	RESULT
APPEARANCE (COLOR)	COLORLESS TO FAINT YELLOW AND WHITE TO FAINT YELLOW AND FAINT BEIGE	COLORLESS
APPEARANCE (FORM)	SOLID OR SEMI-SOLID OR VISCOUS LIQUID	VISCOUS LIQUID
ARGENTOMETR. TITRATION TITRATION (NT) HClO ₄ 0.1M PURITY (HPLC AREA %)	95.0 - 104.0 % 360 EQ. WT. (Å± 30) ~ 70 % BENZYLDIMETHYL- -DODECYLAMMONIUM CHLORIDE	95.3 % 366.8 EQ WT 75.8 % BENZYLDIMETHYL- -DODECYLAMMONIUM CHLORIDE
HPLC MINOR COMPONENT (AREA %)	~ 30 % BENZYLDIMETHYL- -TETRADECYLAMMONIUM CHLORIDE	21.9 % BENZYLDIMETHYL- -TETRADECYLAMMONIUM CHLORIDE
SOLUBILITY (COLOR)	COLORLESS TO VERY FAINT YELLOW	ALMOST COLORLESS
SOLUBILITY (TURBIDITY)	CLEAR	CLEAR
SOLUBILITY (METHOD)	1G IN 10ML WATER, HOT	1G IN 10ML WATER, HOT
WATER	≤ 10 %	1.2 %
SULFATED ASH	≤ 0.1 %	< 0.05 %
INFRARED SPECTRUM	CONFORMS TO STRUCTURE	CONFORMS



Dr. Reinhold Schwenninger
Quality Assurance
Buchs, Switzerland

Sigma-Aldrich warrants that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.