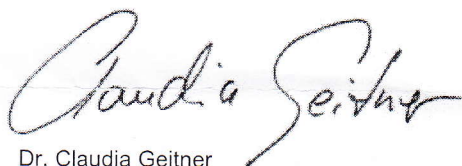


Certificate of Analysis

Product Name: N,N-BIS(PHOSPHONOMETHYL)GLYCINE
 $\geq 98.0 \% T$
Product Number: 15149
Batch Number: BCBM6727V
Brand: Aldrich
CAS Number: 2439-99-8
Formula: $C_4H_{11}NO_8P_2$
Formula Weight: 263.08
Quality Release Date: 19 FEB 2014

TEST	SPECIFICATION	RESULT
APPEARANCE (COLOR)	WHITE TO OFF WHITE	WHITE
APPEARANCE (FORM)	POWDER	POWDER
TITRATION (T) NAOH 0.1M	98.0 - 102.0 %	99.6 %
CARBON CONTENT	18.26 % (THEORY)	18.31 %
HYDROGEN CONTENT	4.21 % (THEORY)	4.29 %
NITROGEN CONTENT	5.32 % (THEORY)	5.38 %
PROTON NMR SPECTRUM	CONFORMS TO STRUCTURE	CONFORMS



Dr. Claudia Geitner
Manager Quality Control
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.