



Industriestrasse 25, CH-9471 Buchs (SG), Switzerland
Tel: +41 81 755 2511 Fax: +41 81 756 5449

Certificate of Analysis

Product Name: *N,N*-BIS(PHOSPHONOMETHYL)GLYCINE
 $\geq 98.0 \% T$
Product Number: 15149
Batch Number: BCBK9544V
Product Brand: Aldrich
Molecular Formula: $C_4H_{11}NO_8P_2$
Molecular Mass: 263.08
CAS Number: 2439-99-8
Quality Release Date: 11 APR 2013

| TEST | SPECIFICATION | RESULTS |
|----------------------------|-----------------------|----------|
| 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) | 18.23 % |
| HYDROGEN CONTENT | 4.21 % (THEORY) | 4.02 % |
| NITROGEN CONTENT | 5.32 % (THEORY) | 5.27 % |
| PROTON NMR SPECTRUM | CONFORMS TO STRUCTURE | CONFORMS |

Dr. Claudia Geitner
Manager Quality Control
Buchs, Switzerland

Sigma-Aldrich, Inc. warrants, that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply. Please see reverse side of the invoice or packing slip. Sigma Brand products are sold exclusively through Sigma-Aldrich, Inc.