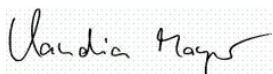


## Certificate of Analysis

**Product Name:** 1-[2-(2-HYDROXYETHOXY)ETHYL]PIPERAZINE  
95 %  
**Product Number:** 331260  
**Batch Number:** STBD5148V  
**Brand:** Aldrich  
**CAS Number:** 13349-82-1  
**Formula:** C<sub>8</sub>H<sub>18</sub>N<sub>2</sub>O<sub>2</sub>  
**Formula Weight:** 174.24  
**Quality Release Date:** 08 AUG 2013

TEST	SPECIFICATION	RESULT
APPEARANCE (COLOR)	COLORLESS TO YELLOW AND COLORLESS TO BROWN	LIGHT YELLOW
APPEARANCE (FORM)	LIQUID OR VISCOUS LIQUID	VISCOUS LIQUID
TITRATION (NT) HClO <sub>4</sub> 0.1M	94.0 - 106.0 %	98.9 %
INFRARED SPECTRUM	CONFORMS TO STRUCTURE	CONFORMS



Claudia Mayer, Manager  
Quality Control  
Steinheim, Germany

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.