

# Certificate of Analysis

Dr. Ehrenstorfer



## Product Identification

10648000 Bis-(4-aminophenyl)methane  
CA Benzenamine, 4,4'-methylenebis-  
IUPAC 4,4'-Methylenedianiline  
Formula C<sub>13</sub>H<sub>14</sub>N<sub>2</sub>  
Mol.Weight 198.26  
CAS No. 101-77-9

## Reference Materials for Residue Analysis

Expiry Date 01.10.2019  
Lot Number 149112  
Store at 20 °C ±4 °C

Please note: The expiry date is valid under recommended storage conditions only.

## Toxicological Data



R Code 39-43-48/49-51-68

S Code 23-36-42-53-61

LD50 (Rats female/male in mg/kg) 517

## Physical Data

Phase crystalline solid

Color yellowish

Melt.Range

Vapour pressure 1 hPa at 197 °C

Solubility in water N/A g/l at °C

Boiling Range (lit.)

## Analytical Data

Detection: GC/FID

Column: DB-5, 30 m, ID 0.25 mm

Inj.-Vol.:

Flow: 1.0 ml/min

Ret.-Time: 27.72 min.

Method Details:

Injector: 320° C

Start Temperature: 120° C for 4 min

End Temperature: 320° C for 8 min

Gradient: 5° C/min

Identity: RT

Comment Purity was determined by external standard method.

Inj. Vol.: 4 µl

Water Content

Determined by Karl-Fischer Titration

Det. Purity 99.0 %

Tolerance/Uncertainty +/- 0.5 %

The uncertainty/tolerance of this standard is calculated in accordance with the EURACHEM/CITAC Guide - Quantifying Uncertainty in Analytical Measurement - Second Edition. The uncertainty given is the expanded combined uncertainty and represents an estimated standard deviation equal to the positive square root of the total variance of the uncertainty of components. The expanded uncertainty is  $U$  which is  $U_c(y) \cdot K$ , where  $K$  is the coverage factor at the 95% confidence level ( $K=2$ ). The expanded uncertainty is based on the combination of uncertainties associated with each individual operation involved in the preparation of this product.

Certified on 25.07.2017

by M. Beck

The Laboratory LGC Labor GmbH is accredited by DAkkS as indicated by the Accreditation Number D-RM-19883-01 & D-PL-19883-01 has shown competence based on ISO Guide 34:2009 with relevant parts of DIN EN ISO/IEC 17025:2005 for production of certified reference materials in form of organic pure substances and in form of single and multi-component solutions organic pure substances.

LGC Labor GmbH · Bgm.-Schlosser-Str. 6 A · 86199 Augsburg · Germany  
Phone +49 821 906080 · Fax +49 821 9060888 · augsburg.inquiry@lgcgroup.com  
The warranty for this product is limited to the purchasing price of this product.

