

**Certificate of Analysis**

Description : OPA-Reagent, 10 mg/ml, 6 ampoules

Part.-No. : 5061-3335

Production date : 25-Jan 2016

Lot-No. : BCBR5020V (99417)

Expiration date : 25-Jan 2017

Raw materials

All raw materials used to prepare this OPA-Reagent are of the highest available purity and are routinely analyzed according to the specified purity-determinations.

Manufacturing

We employ precise measuring techniques in manufacturing. Mass is determined with electronic balances capable of weighing to 0.0001 g and calibrated by the Swiss Office of Weights and Measures. Volume is determined in dedicated high-purity borosilicate volumetric flasks capable of measuring with an accuracy of 0.3%.

Packaging and Storage

The final solution was handled under argon and automatically sealed in 1 ml amber ampoules. Finished ampoules are packaged and stored at 4 °C.

Stability

Every individual lot of the product is subjected to reanalysis and the experience allows to set the shelf life to one year, if the product is stored as received at 4 °C. The guaranteed stability is not applicable to ampoules stored after opening, even if resealed.

Analytical Quality Control

The scope of the analytical testing procedures covers identity, purity, homogeneity, accuracy, function test in amino acid analysis and stability of the finished product

| Description | Lot Analysis | Specifications |
|----------------------------|--------------------------------|-------------------------------|
| Aspect | clear, almost colorless liquid | clear, yellowish liquid |
| Density (20/4) | 1.044 | 1.04 ± 0.01 g/ml |
| Index Of Refraction (20/D) | 1.348 | 1.348 ± 0.005 |
| Amino Acid Analysis : | corresponds | standard and blank correspond |
| - Identity | corresponds | corresponds |
| - Purity | corresponds | corresponds |
| - Concentration Accuracy | corresponds | ± 5 % |
| Luminescence Test | corresponds | corresponds |

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