



# Certificate of Analysis

Reference Material MEG-160927

Institute for  
Interlaboratory Studies

Mono Ethylene Glycol

Reference Material MEG-160927 consists of a 250 ml bottle, containing approximately 240 ml of Mono Ethylene Glycol (MEG). This RM is intended primarily as a quality control material for use in the determination of Acidity D1613, Aldehydes, Colour Pt/Co, Density at 20°C, D1078 distillation, Iron, Specific Gravity 20/20 °C and Water.

## Certified Property Values

The certified values are given in table 1. The certified values in table 1 have been derived from the results obtained from an international interlaboratory study in which 64 laboratories participated in 2016. The results of this interlaboratory study are presented and discussed in the report iis16C09, see [www.iisnl.com](http://www.iisnl.com).

Table 1. Certified values<sup>b</sup> for MEG-160927.

Parameter	Certified value <sup>a</sup>
Acidity (D1613), mg/kg	6.00 ± 0.40
Aldehydes as acetaldehyde, mg/kg	11.81 ± 0.79
Colour Pt/Co D1209	1.93 ± 0.28
Colour Pt/Co D5386	1.88 ± 0.31
Density at 20°C, kg/L	1.11333 ± 0.00002
IBP (D1078), °C	196.7 ± 0.1
50% rec. (D1078), °C	197.6 ± 0.1
Dry Point (D1078), °C	198.0 ± 0.1
Iron as Fe, mg/kg	0.0263 ± 0.0031
Spec. Gravity 20/20°C	1.11534 ± 0.00003
Water, mg/kg	549.1 ± 8.3

a) The estimated uncertainty is given as 95% confidence limits

b) The following values were also determined for this RM. These values are not certified, but for indication only:

Acidity (E2679), mg/kg	1.60 ± 0.54
Ash, %M/M	0.0003 ± 0.0001
Chloride (inorganic) as Cl, mg/kg	0.106 ± 0.024
Diethylene glycol, mg/kg	15.0 ± 2.0
Purity, %M/M	99.919 ± 0.009

## NOTICE AND WARNINGS TO USERS

**Shelf life:** The preparation of this RM was finished December 27, 2016. When stored properly and unopened, the expiry date of this RM is **December 2020**. The validity of the RMs in stock is regularly verified by analytical testing by an ISO/IEC17025 accredited laboratory. In case of any doubt about the validity of the RM you are advised to contact the Institute for Interlaboratory Studies via [www.iisnl.com](http://www.iisnl.com).

**Storage:** Bottles should be stored in a dark and cool place, preferably at a temperature between 0 °C and + 10 °C.

### Suggested procedure for use of the RM as quality control sample:

Before opening a bottle and taking a sample for analysis, the contents must be mixed to ensure homogeneity. Once the bottle has been opened, the material is susceptible to contamination (e.g. laboratory dust or vapours) or losses. Certified values are not applicable to bottles stored after opening, even if resealed.

**Safety handling instructions:** Mono Ethylene Glycol is harmful if swallowed; therefore, care should be exercised during handling and use. Use proper methods for disposal of waste.

Spijkensisse, The Netherlands  
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