



Certificate of Analysis

Reference Material EtOH-180599

Ethanol

Institute for
Interlaboratory Studies

Reference Material EtOH-180599 consists of a 100 ml bottle, containing approximately 100 ml of Ethanol. This RM is intended primarily as a quality control material for use in the determinations of Purity, Strength, Apparent Density and Water.

Certified Property Values

The certified value is given in table 1. The certified value in table 1 has been derived from the results obtained from an international interlaboratory study in which 19 laboratories participated. The results of this interlaboratory study are presented and discussed in the I.I.S. report IIS99C01.

Table 1. Certified values^b for EtOH-180599.

<u>Parameter</u>	<u>Certified value^a</u>
Purity, %M/M	96.191 ± 0.079
Purity on dry basis, %M/M	99.991 ± 0.001
Strength, %V/V	97.558 ± 0.030
Apparent Density @ 20°C, Kg/L	0.79974 ± 0.00011
Water, %M/M	3.802 ± 0.060

- 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:
Strength, %M/M: 96.155 ± 0.056 , Methanol, mg/Kg: 27.4 ± 6.5 ; Acetone, mg/Kg: 11.7 ± 2.5

NOTICE AND WARNINGS TO USERS

Shelf life: The preparation of this RM was finished May 18, 1999. When stored properly and unopened, the expire date of this RM is **March 2016**. I.I.S. regularly checks the validity of the RM's in stock. In case of any doubt about the validity of the RM you are advised to contact I.I.S.

Storage: Bottle 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 the ampoule 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 vapors) or losses. Certified values are not applicable to ampoules stored after opening, even if resealed.

Safety handling instructions: Ethanol is flammable. Use proper methods for disposal of waste.

Spijkensisse, The Netherlands
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