



Institute for
Interlaboratory Studies

Certificate of Analysis

Reference Material DSOX-041096

o-Xylene
for purity determination by GLC

Reference Material DSOX-041096 consists of a 60 ml crimp capped vial, containing approximately 55 ml of high purity o-Xylene. This RM is intended primarily as a quality control material for use in gas chromatographic methods for determination of the purity of o-Xylene.

Certified Concentrations of Impurities

Certified concentrations of some impurities in %m/m are given in table 1. The certified values in table 1 are derived from the gas chromatographic results obtained from an international interlaboratory study in which 21 laboratories participated. The results of this interlaboratory study are presented and discussed in the I.I.S. report IIS96C03-RM.

Table 1. Certified values^b for DSOX-041096.

| <u>Compound</u> | <u>Concentration (%m/m)^a</u> |
|------------------|---|
| p-xylene | 0.136 ± 0.004 |
| m-xylene | 0.778 ± 0.023 |
| ethylbenzene | 0.0127 ± 0.0009 |
| isopropylbenzene | 0.426 ± 0.012 |
| styrene | 0.0083 ± 0.0008 |
| ethyltoluenes | 0.0117 ± 0.0006 |
| n-propylbenzene | 0.0121 ± 0.0009 |

- a) The estimated uncertainty is given as 95% confidence limits
b) Also the following compounds are present in this RM. The concentrations of these compounds are not certified, but for indication only:
o-Xylene 98.56 ± 0.03 ; other aromatics 0.0016 ± 0.0011 and Nonaromatics 0.046 ± 0.009

NOTICE AND WARNINGS TO USERS

Shelf life: The preparation of this RM was finished December 10, 1996. When stored properly and unopened, 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: Sealed vial, as received, should be stored in the dark at a temperature between 10-30 °C.

Suggested procedure for preparing a quality control sample: The following procedure provides purity determination in accordance with ASTM D3797:1995.

1. Allow vial to equilibrate at a temperature of 23 ± 3 °C and shake for one minute.
2. Open the vial and transfer an amount of RM into a volumetric flask of 50 ml.
3. Adjust the volume to 50 ml with RM from the vial.
4. Add a known amount of the internal standard to be used into the volumetric flask and homogenise the mixture well.

Toxicity: This RM consists of o-Xylene, which is considered to be harmful; therefore, care should be exercised during handling and use. Use proper methods for disposal of waste.

Spijkensisse, The Netherlands
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