

# CERTIFICATE OF ANALYSIS

## LiChrosorb® RP-8 (5 µm)

Hibar® RT 125 - 4

Ord. No. 1.50432.0001      Sorbent Lot No. TA2253432      Date of test (yyyy.mm.dd): 2022.10.24  
Column No. 236587      Minimum shelf life (yyyy.mm.dd): 2032.10.31

### 1. PACKING MATERIAL

This sorbent lot has successfully passed all production quality tests regarding retention factor ( $k'$ ), selectivity (separation factor,  $\alpha$ ), separation efficiency (number of theoretical plates per meter,  $N/m$ ), chemical stability and packing stability. Test results are available upon request.

### 2. COLUMN TEST

This column has passed quality control tests with respect to retention factor ( $k'$ ), separation efficiency ( $N/m$ ), peak symmetry ( $T(USP)$ ) and column back pressure ( $\Delta p$ ).

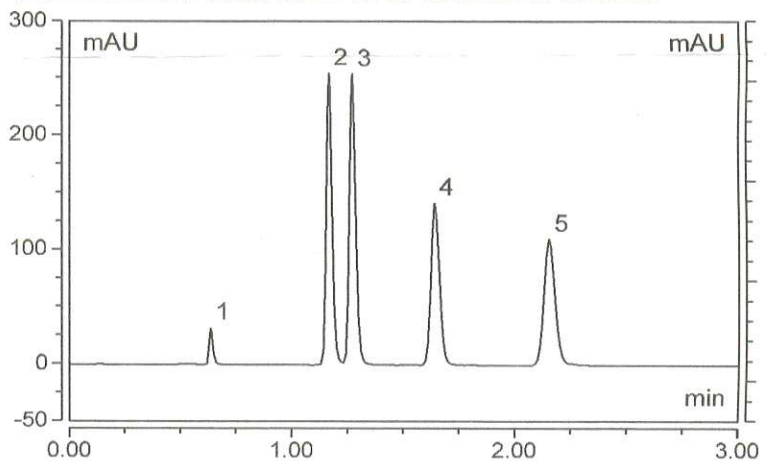
#### Specification for Toluene

$N/m$        $\geq$  55000  
 $T(USP)$       = 0.8 - 1.4

#### Test result for Toluene

$k'$       = 0.84  
 $N/m$       = 83656  
 $T(USP)$       = 1.24  
 $\Delta p$       = 31 bar

#### COLUMN PERFORMANCE TEST CHROMATOGRAM



Retention factor ( $k'$ ), separation efficiency ( $N/m$ ), peak symmetry ( $T(USP)$ ) and selectivity  $\alpha$  were calculated according to USP Chapter 621. For further information please visit [sigmaaldrich.com](http://sigmaaldrich.com).

#### Test Substances

1. Uracil
2. Toluene
3. Naphthalene
4. Anthracene
5. 1,2-Benzanthracene

#### Test Conditions

Mobile Phase: Acetonitrile/Water (75/25, v/v)  
Flow Rate: 1.0 ml/min  
Inj. Volume: 1 µl  
Detection: UV 254 nm  
Detector Cell Volume: 2.5 µl

*Tom Kupfer*

Responsible laboratory manager quality control

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