

## Mineral oil standard

- Description:** Glass ampoule containing approximately 5 ml of mineral oil. The mineral oil contains hydrocarbons in the range of C<sub>10</sub> to C<sub>40</sub>. The mineral oil VSL-001 is the successor of the RIVM-LOC-001 mineral oil standard and RIVM-NMi-001.
- Method of preparation:** Gravimetric preparation from Shell gas oil and Shell HVI 60 oil. The oil samples were mixed at a mass ratio of 0.88:1, measurements have been carried out to compare the properties of the standard with those of RIVM-NMi-001:
- The contents of the diluted standard were determined by means of GC-FID and calibrated with diluted RIVM-NMi-001.
  - The ratio C<sub>20</sub>-C<sub>40</sub>:C<sub>10</sub>-C<sub>20</sub> was determined for both the standard and RIVM-NMi-001.
- Result:** As found in a study in 2018, the recovery of the contents in the diluted standard was on average 92.5 % and ranged from 91.6 to 93.6 %.  
The ratio C<sub>20</sub>-C<sub>40</sub>:C<sub>10</sub>-C<sub>20</sub> of the standard was on average found to be 1.34.  
The results meet the requirements of e.g. the standard NEN 6978:2016 and EN-ISO 16703:2011.
- Safety information:** The ampoule should be handled with care and by experienced personnel in a laboratory environment suitably equipped for the safe handling of oily materials.
- Instructions for use:** The material can be used to validate and/or calibrate analytical methods applied.
- Stability:** The certificate is valid until 1 May 2038 provided the sample is maintained at 4 °C after receipt.

Delft, 1 December 2018  
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