

Certificate of Analysis

21 Terpene Mix

Catalog Number: C-938
Lot Number: 220531
Manufacture Date: 05/31/2022

Expiration: 05/31/2024
Solvent: Hexane
Hazards: Irritant, Flammable

<u>Analyte</u>	<u>CAS</u>	<u>Analyte Purity</u>	<u>Certified Concentration (ug/mL)</u>
Camphene	79-92-5	96.8%	2499.8 ± 23.3
beta-Myrcene	123-35-3	91.9%	2500.0 ± 23.3
alpha-Phellandrene	99-83-2	85.0%	2486.9 ± 23.2
(1S)-(+)-3-Carene	498-15-7	99.3%	2499.9 ± 23.3
p-cymene	99-87-6	100%	2499.9 ± 23.3
Eucalyptol	470-82-6	99.8%	2500.1 ± 23.3
Ocimene (mix of isomers)	13877-91-3	94.6%	2500.1 ± 23.3
Linalool	78-70-6	98.9%	2499.9 ± 23.3
(-)-Isopulegol	89-79-2	100%	2500.1 ± 23.3
Camphor	76-22-2	96.4%	2500.5 ± 23.3
Isoborneol	124-76-5	99.1%	2500.2 ± 23.3
Menthol	89-78-1	99.0%	2502.5 ± 23.3
Nerol	106-25-2	98.7%	2499.9 ± 23.3
Geranyl Acetate	105-87-3	98.1%	2500.1 ± 23.3
beta-Caryophyllene	87-44-5	90.6%	2500.1 ± 23.3
Farnesene, mix of isomers	502-61-4	100%	2501.1 ± 23.3
Valencene	4630-07-3	87.7%	2500.1 ± 23.3
cis-Nerolidol	3790-78-1	95.4%	2499.9 ± 23.3
(-)-Caryophyllene oxide	1139-30-6	99.2%	2499.5 ± 23.3
(+) - Cedrol	77-53-2	99.1%	2501.1 ± 23.3
(-)-alpha-bisabolol	23089-26-1	93.0%	2500.4 ± 23.3

This certified reference material (CRM) was manufactured and certified by NSI Lab Solutions according to quality procedures meeting our accreditation requirements of ISO 17034:2016 and ISO/IEC 17025:2017. Our certificates and scopes of accreditation may be viewed at www.anab.org.

Packaging, Storage, Instructions For Use

This CRM is packaged in a flame-sealed ampule and must be stored at -10°C to -20°C. To use this CRM, allow it to reach room temperature. Mix it gently by inversion. Inspect for precipitate. If present, sonicate for a few minutes to redissolve. Open the ampule and withdraw an aliquot appropriate for your application.

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Traceability Information

Analyte Source Materials: The highest purity analyte source materials are used in the manufacture of this standard. The actual purity is referenced above.

Method: This CRM was verified Volumetrically/Gravimetrically and Analytically.

Balance: All analytical balances are calibrated on a semiannual basis by an ISO 17025 accredited calibration laboratory and are traceable to NIST. Traceable Calibration Certificate available upon request.

All balances are checked daily by an in-house standard operating procedure. The weights used for this daily verification are calibrated annually by an ISO 17025 accredited calibration laboratory and are certified traceable to NIST. Certificate of Calibration and Traceability available upon request.

Thermometer: All thermometers are NIST traceable through thermometers that are calibrated annually by an ISO 17025 accredited calibration laboratory.

Glassware: All glassware used in the manufacture of our standards is Class A. An in-house standard operating procedure is used to verify all glassware prior to it being placed into service. Volumetric pipetors are calibrated every four months by an ISO 17025 accredited calibration laboratory.

Intended Uses

- Calibration of analytical instruments
- Validation of analytical methods
- Preparation of working level reference materials, i.e. "check standards"
- Detection limit studies

Homogeneity

This CRM was thoroughly mixed in production and is guaranteed homogenous.

Ken Grzybowski

Ken Grzybowski, Organics Department Manager

Mark Hammersla

Mark Hammersla, President