



Agilent Technologies

Certificate of Analysis

ESI-L Low Concentration Tuning Mix

Agilent Part Number: G1969-85000

Sample Lot Number: 0006461036

Concentration (weight to volume) and Purity/Grades:

| Neat Material | CAS # | Gravimetric Conc. | Purity |
|--|-------------|-------------------|------------|
| Betaine | 107-43-7 | <0.01% | 99.9% |
| Trifluoroacetic acid ammonium salt | 3336-58-1 | <0.01% | 100% |
| Hexamethoxyphosphazine | 957-13-1 | <0.01% | 99.0% |
| Hexakis(2,2-difluoroethoxy)phosphazine | 186817-57-2 | <0.01% | 99.0% |
| Hexakis(1H, 1H, 3H-tetrafluoropropoxy)phosphazine | 58943-98-9 | <0.01% | 99.0% |
| Hexakis(1H, 1H, 5H-octafluoropentoxy)phosphazine | 16059-16-8 | <0.01% | 97.0% |
| Hexakis(1H, 1H, 7H-dodecafluoroheptoxy)phosphazine | 3830-74-8 | <0.01% | 99.0% |
| Hexakis(1H, 1H, 9H-perfluorononyloxy)phosphazine | 186043-67-4 | <0.01% | 96.0% |
| Hexakis(1H, 1H, 4H-hexafluorobutyloxy)phosphazine | 186406-47-3 | <0.01% | 97.0% |
| Hexakis(1H, 1H, 6H-decafluorohexyloxy)phosphazine | 186406-48-4 | <0.01% | 97.0% |
| Hexakis(1H, 1H, 8H-tetradecafluorooctyloxy)phosphazine | 186406-49-5 | <0.01% | 98.0% |
| Tris(trifluoromethyl)-1, 3, 5-triazine | 368-66-1 | <0.01% | 99.8% |
| Tris(heptafluoropropyl)-1, 3, 5-triazine | 915-76-4 | <0.01% | 98.0% |
| Solvent: Acetonitrile (HPLC Grade) | 75-05-8 | 95.0% | 99.9% |
| DI Water | 7732-18-5 | 5.0% | De-ionized |

Storage Condition: Store Refrigerated (2° to 8° C)

Traceability:

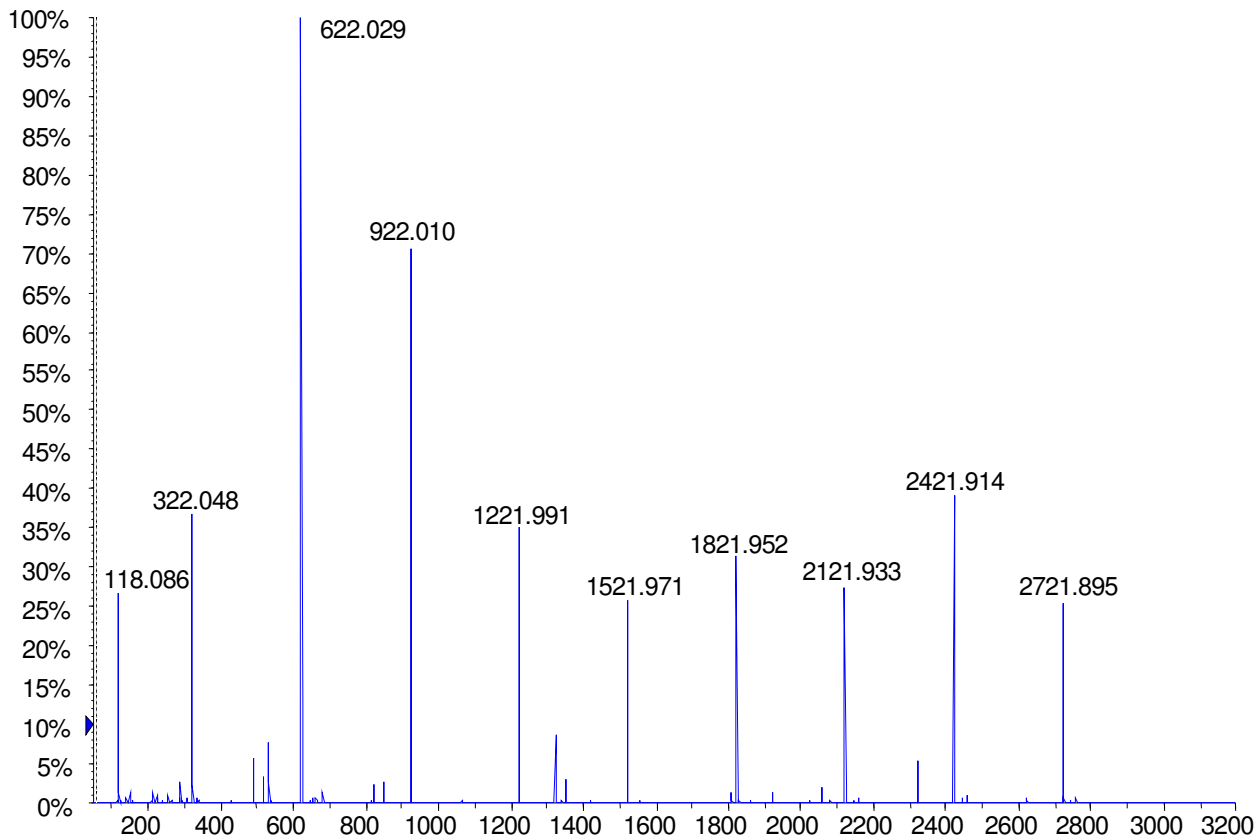
This standard has been produced gravimetrically using ISO9001 quality procedures. NIST traceable weights are used to verify balance calibration with the preparation of each lot. Concentration of analyte in solution is ug/ml +/- 0.5%, uncertainty based upon balance and Class A volumetric glassware. API-Mass spectrometry was used to evaluate this multi-standard solution.



G1969-85000 POS ES-TOF SPECTRA

□ +TOF MS: 0.097 to 1.967 min from QC100203_pp6_ESpos.wiff Agilent

Max. 4.0e5 counts.



Sample: G1969-85000

Instrument: Agilent G1969A API-TOF MS

Mode:ES

Polarity: Positive ion mode

CDS infusion rate: 0.1 ml/min

Vcap: -4 kV

Fragmentor: 215 V

Nebulizer pressure : 20 psig

Drying gas flow : 6 L/min

Drying gas temperature : 300 °C

MCP : 650 V

PMT : 703 V

Scan range: m/z 50-3200

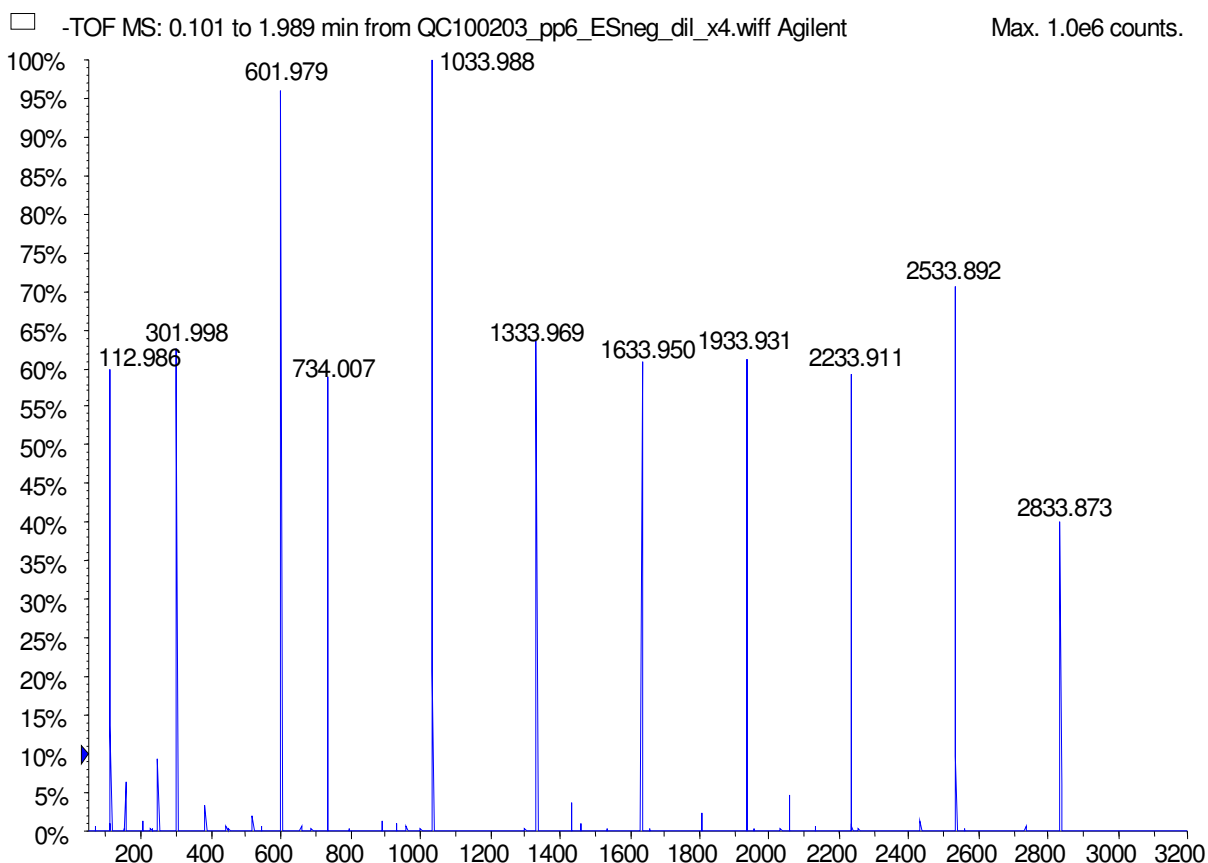
Transients : 10,000

Flight tube: -6.5 kV

Oct. RF : 250 V pk



G1969-85000 NEG ES-TOF SPECTRA



Sample: G1969-85000 (1:4 dilution in 95:5 ACN/H₂O)

Instrument: Agilent G1969A API-TOF MS

Mode:ES

Polarity: Negative ion mode

CDS infusion rate: 0.1 ml/min

Vcap: +4 kV

Fragmentor: 160 V

Nebulizer pressure : 20 psig

Drying gas flow : 6 L/min

Drying gas temperature : 300 °C

MCP : 650 V

PMT : 703 V

Scan range: m/z 50-3200

Transients : 10,000

Flight tube: +6.5 kV

Oct. RF : 250 V pk



PRINCIPAL IONS

| MASS | POS | NEG |
|-------------|--------------------|--------------------|
| 1 | 118.086255 | 112.985587 |
| 2 | 322.048121 | 301.998139 |
| 3 | 622.028960 | 601.978977 |
| 4 | 922.009798 | 1033.988109 |
| 5 | 1221.990637 | 1333.968947 |
| 6 | 1521.971475 | 1633.949786 |
| 7 | 1821.952313 | 1933.930624 |
| 8 | 2121.933152 | 2233.911463 |
| 9 | 2421.913990 | 2533.892301 |
| 10 | 2721.894829 | 2833.873139 |

Date of Release: 16 April 2019

Date of Expiration: 31 May 2021


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QMS Representative