



Certificate of Analysis

ESI-L Low Concentration Tuning Mix 100ml

Agilent Part Number: G1969-85000 **Sample Lot Number:** LB66847

Concentration (weight to volume) and Purity/Grades:

Neat Material	Gravimetric Conc.	Neat material Purity and/or Grade
Betaine (CAS NO.: 107-43-7)	< 0.01%	99.40%
Trifluoroacetic acid ammonium salt (CAS NO.: 3336-58-1)	< 0.01%	98.60%
Hexamethoxyphosphazine (CAS NO.: 957-13-1)	< 0.01%	99.10%
Hexakis(2,2-difluoroethoxy)phosphazine (CAS NO.: 186817-57-2)	< 0.01%	98.50%
Hexakis(1H, 1H, 3H-tetrafluoropropoxy)phosphazine (CAS NO.: 58943-98-9)	< 0.01%	97.00%
Hexakis(1H, 1H, 5H-octafluoropentoxy)phosphazine (CAS NO.: 16059-16-8)	< 0.01%	99.00%
Hexakis(1H, 1H, 7H-dodecafluoroheptoxy)phosphazine (CAS NO.: 3830-74-8)	< 0.01%	99.00%
Hexakis(1H, 1H, 9H-perfluorononyloxy)phosphazine (CAS NO.: 186043-67-4)	< 0.01%	99.00%
Hexakis(1H, 1H, 4H-hexafluorobutyloxy)phosphazine (CAS NO.: 186406-47-3)	<0.01%	97.00%
Hexakis(1H, 1H, 6H-decafluorohexyloxy)phosphazine (CAS NO.: 186406-48-4)	<0.01%	97.00%
Hexakis(1H, 1H, 8H-tetradecafluorooctyloxy)phosphazine (CAS NO.: 186406-49-5)	<0.01%	99.00%
Tris(trifluoromethyl)-1, 3, 5-triazine (CAS NO.: 368-66-1)	<0.01%	99.00%
Tris(heptafluoropropyl)-1, 3, 5-triazine (CAS NO.: 915-76-4)	<0.01%	99.00%

Solvent Composition:

Acetonitrile (CAS NO.: 75-05-8)	95.0%	HPLC grade 99.9%
DI Water (CAS NO.: 7732-18-5)	5.0%	De-ionized

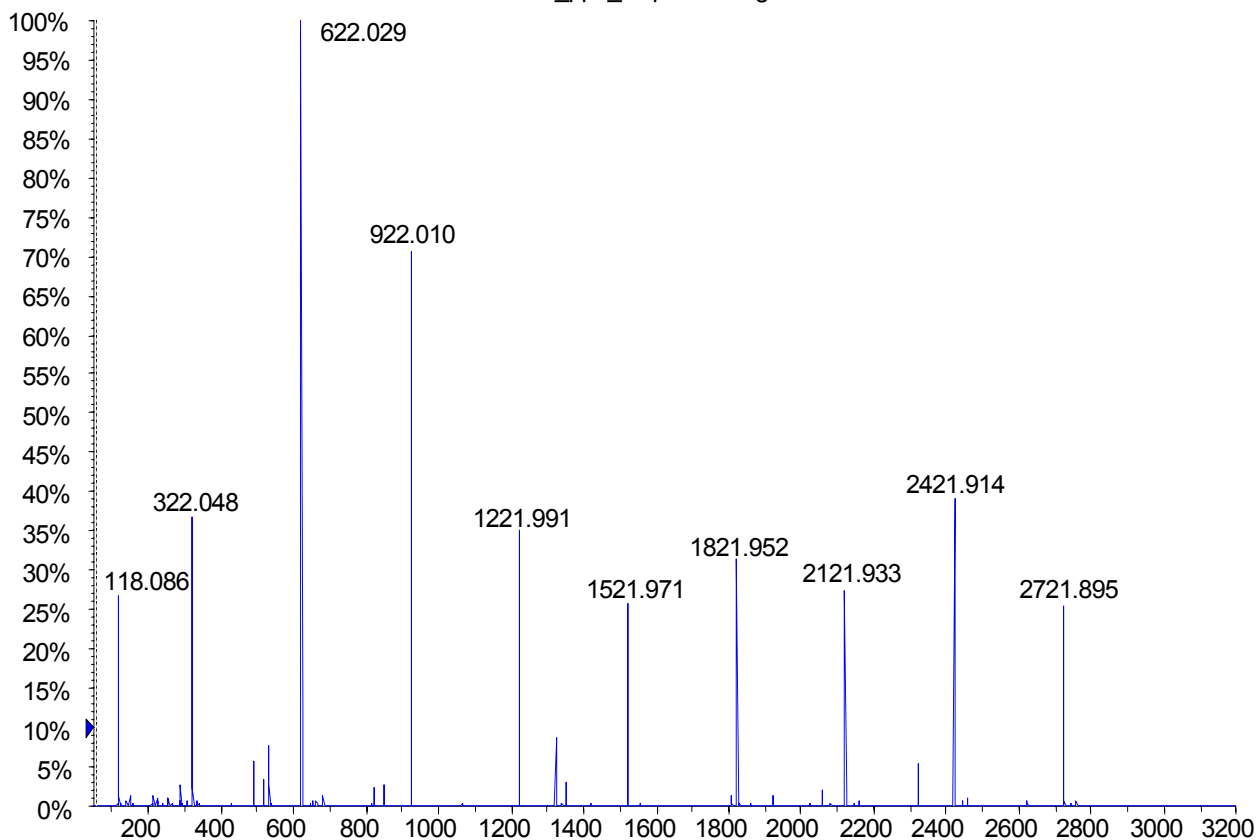
Traceability:

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

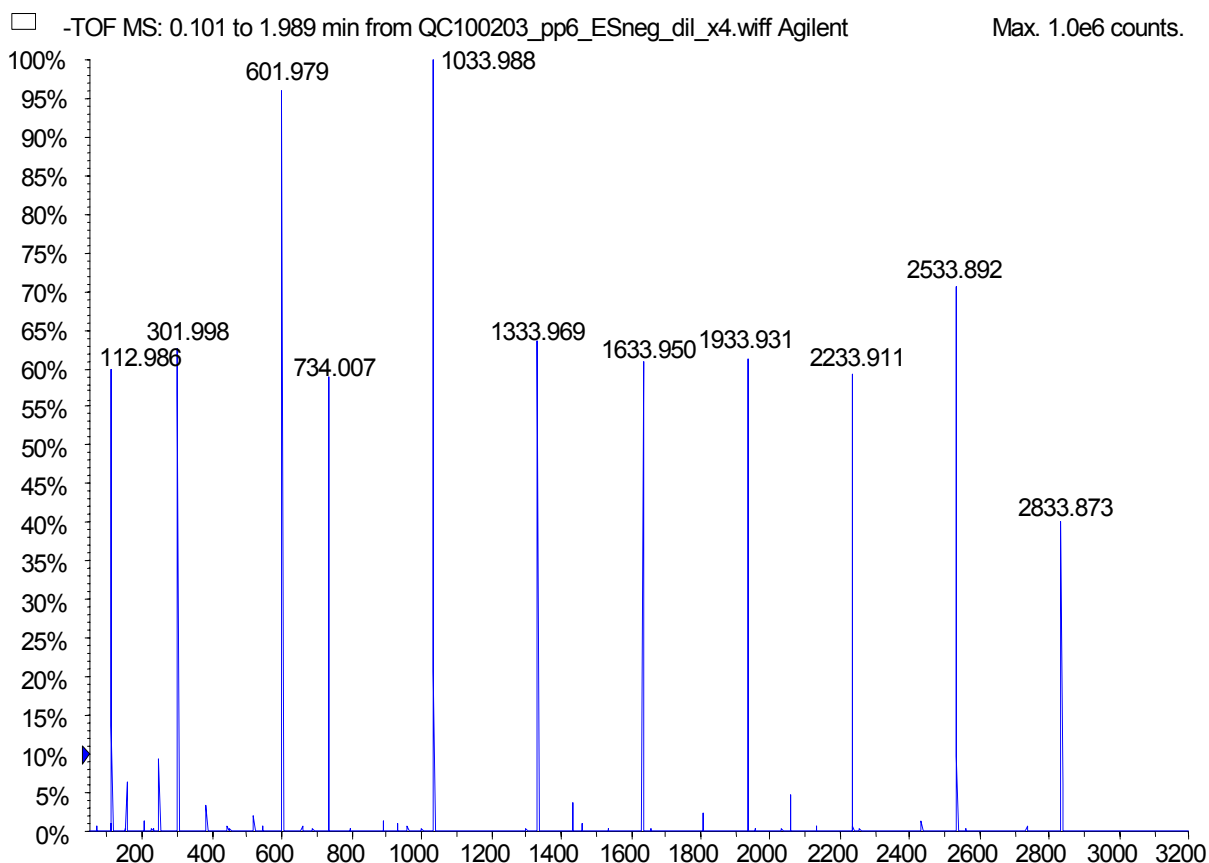
Scan range: m/z 50-3200

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

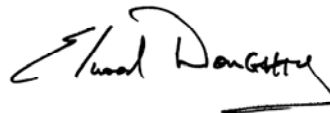
Oct. RF : 250 V pk

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 Manufacture: 22 APRIL 2009

Date of Expiration: 22 APRIL 2011



Elwood Doughty
QA Manager
Supelco, Inc.