

Certificate of Analysis

ESI + APCI LC Demo Sample

Agilent Part Number: G1978-85000 Sample Lot Number: LB28821

Concentration: Weight to Volume and Purity/Grade

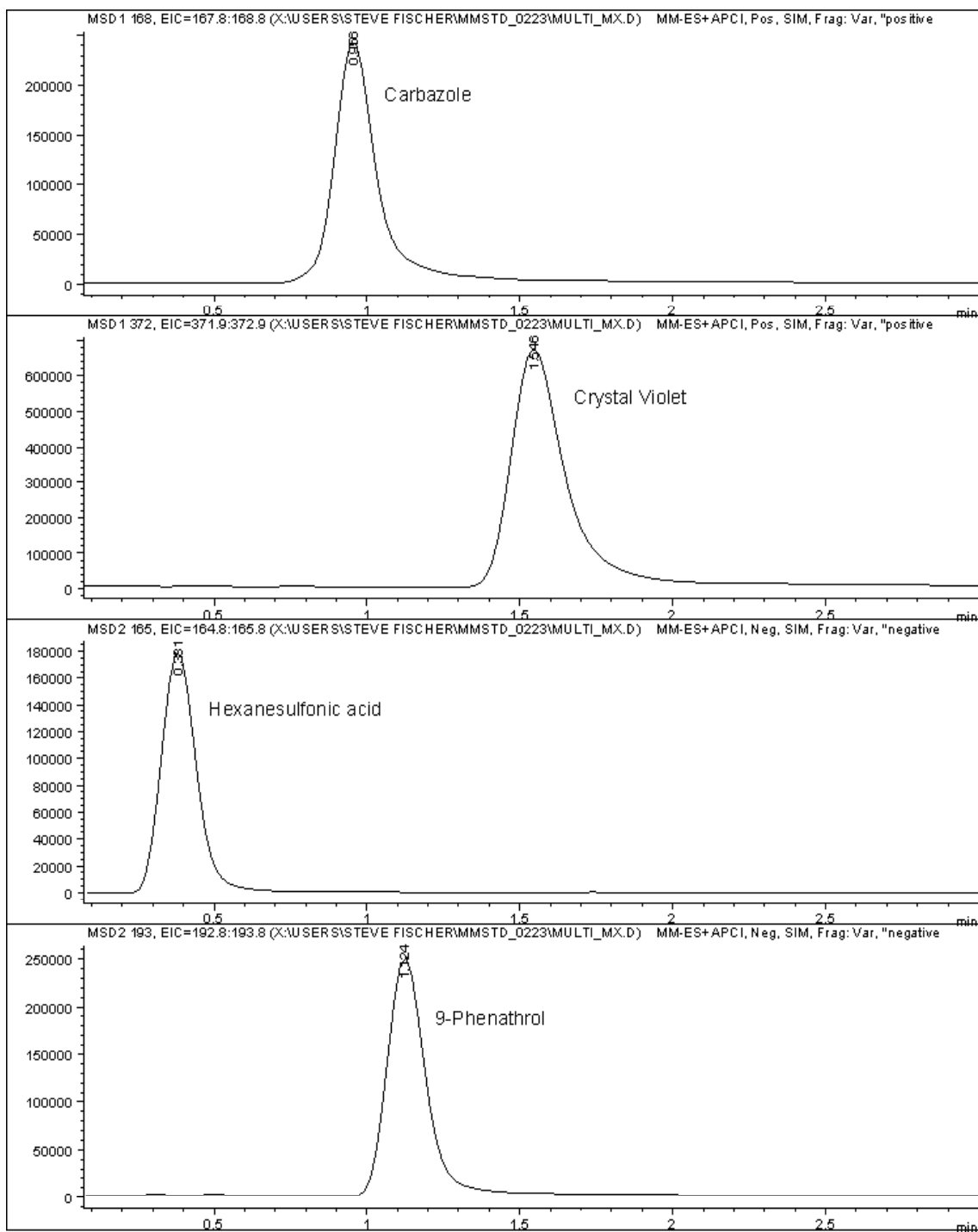
Neat Material	Gravimetric Conc.	Purity and/or Grade
Crystal Violet (CAS NO.: 548-62-9)	0.33 ng/ul (+/- 0.005)	95% dye content
Carbazole (CAS NO.: 86-74-8)	150.00 ng/ul (+/- 0.004)	96.10% GCFID
1-Hexanesulfonic acid sodium salt (CAS NO.: 2832-45-3)	5.00 ng/ul (+/- 0.004)	37.67% Carbon, Elemental Analysis
9-Phenanthrol (CAS NO.: 484-17-3)	150.00 ng/ul (+/- 0.004)	97.60% HPLC

Solvent Composition	Concentration	Neat Material Purity and/or Grade
Di-Water (CAS NO.: 7732-18-5)	40.0%	De-ionized
Methanol (CAS NO.: 67-56-1)	59.0%	Capillary High Resolution Grade 99.9%
Acetic Acid (CAS No.: 64-19-7)	1.0%	Reagent Plus >/ 99.0%

Traceability:

This standard has been produced gravimetrically using ISO9001 quality procedures. Balances used are calibrated regularly and meet the requirements of ISO.

Analytical Spectrum:



NOTE:

- Carbazole ionizes predominantly in the positive APCI mode.
- Crystal violet ionizes only in the positive ESI mode.
- 1-Hexanesulfonic acid sodium salt ionizes only in the negative ESI mode.
- 9-Phenanthrol ionizes predominantly in the negative APCI mode.

Agilent 1100 Series LC System:

G1354A Quaternary Pump (incl. degasser)

G1313A Automatic Liquid Sampler (ALS)

G1956B LC/MSD SL

G1978A Multimode APCI+ESI source

Column: Zorbax SB-C18 Rapid Resolution Cartridge 2.1 x 30 mm, 3.5 um

Column Temperature: Ambient

Flow Rate: 0.4 ml/min

Mobile Phase: 65 methanol : 35 Water : 0.2 acetic acid

Ionization Mode: MM-APCI+ESI, pos/neg switching

Nebulizer: 60 psi

Drying gas flow: 5 L/min

Drying gas temperature: 350 C

Vaporizer: 200 C

Charging Voltage: 2000

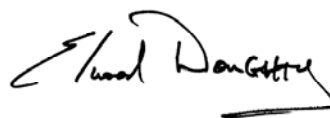
Capillary Voltage: 1000

SIM Ion positive: 168.1 , 372.2

SIM Ion negative: 165.1, 193.1

Date of Release: 18-Mar-05

Date of Expiration: 18-Mar-06

A handwritten signature in black ink, appearing to read "Elwood Doughty". The signature is stylized with a large, sweeping initial "E" and a long, horizontal tail stroke.

Elwood Doughty
QA Manager
Supelco, Inc.