SFLT

Method: CHIRAL

Separation of Controlled and Non-controlled Substances by Capillary Electrophoresis

Scope: Limited purpose (Analysis of methamphetamine and amphetamine)

Sample Preparation:

Samples will be dissolved in water, methanol or 0.1N HCl and diluted to an appropriate concentration using an internal standard solution containing phenylpropanolamine.

Method Parameters:

Instrument: Capillary Electrophoresis HP/Agilent 7100 equipped with an UV/Vis detector
Capillary Type and Dimensions: 64.5cm (56.0cm LEF) x 50µm ID bare fused silica capillary
Capillary Temperature: 20°C
Injection Parameters: Sample for 2 seconds at 50mbar; Water for 1 second at 35mbar
Buffer: Custom Chiral Buffer for Phenethylamines and Propoxyphene CE buffer with HP-B Cyclodextrin
Voltage: 30kV
Detection Wavelength: 200nm
Minimum Run Time: 17.3min

Limitations: See individual instrument validation reports.

Acceptance Criteria:

Selectivity: Target compounds are visually separated and observed as a single peak with a clear, non-splitting apex. Peak fronting/tailing, if observed, does not preclude the detection of closely eluting peaks. A minimum S/N =3 is observed.

Repeatability: Individual migration times measured are within 0.3 minutes of the average of all injections, and/or the individual relative retention times are within 1% of the average of all injections.

Reproducibility: Individual migration times measured during 6 weeks. The individual relative retention times are within 1% of the values measured on week 1.

SFLT

Method: DEXTROMETHORPHAN

Separation of Controlled and Non-controlled Substances by Capillary Electrophoresis

Scope: Limited purpose (levomethorphan and dextromethorphan)

Sample Preparation:

Samples will be dissolved in water, methanol or 0.1N HCl and diluted to an appropriate concentration using an internal standard solution containing phenylpropanolamine.

Method Parameters:

Instrument: Capillary Electrophoresis HP/Agilent 7100 equipped with an UV/Vis detector
Capillary Type and Dimensions: 64.5cm (56.0cm LEF) x 50µm ID bare fused silica capillary
Capillary Temperature: 20°C
Injection Parameters: Sample for 2 seconds at 50mbar; Water for 1 second at 35mbar
Buffer: Custom Buffer for d,l Methorphan
Voltage: 30kV
Detection Wavelength: 200nm
Minimum Run Time: 17.3min

Limitations: See individual instrument validation reports.

Acceptance Criteria:

Selectivity: Target compounds are visually separated and observed as a single peak with a clear, non-splitting apex. Peak fronting/tailing, if observed, does not preclude the detection of closely eluting peaks. A minimum S/N =3 is observed.

Repeatability: Individual migration times measured are within 0.3 minutes of the average of all injections, and/or the individual relative retention times are within 1% of the average of all injections.

Reproducibility: Individual migration times measured during 6 weeks. The individual relative retention times are within 1% of the values measured on week 1 and/or the individual relative retention times during 6 weeks are within 1% of the values measured on week 1.

SFLT

Method: PSILOCIN-PSILOCYBIN

Separation of Controlled and Non-controlled Substances by Capillary Electrophoresis

Scope: Limited purpose (Psilocin-Psilocybin)

Sample Preparation:

Samples will be dissolved in an appropriate solvent, such as methanol, and diluted to an appropriate concentration. An internal standard solution containing phenylpropanolamine may be utilized but is not required.

Method Parameters:

Instrument: Capillary Electrophoresis HP/Agilent 7100 equipped with an UV/Vis detector
Capillary Type and Dimensions: 64.5cm (56.0cm LEF) x 50µm ID bare fused silica capillary
Capillary Temperature: 25°C
Injection Parameters: Sample for 2 seconds at 50mbar; Water for 1 second at 35mbar
Buffer: Accelerator B
Voltage: 30kV
Detection Wavelength: 220nm
Minimum Run Time: 15.0min

Limitations: See individual instrument validation reports.

Acceptance Criteria:

Selectivity: Target compounds are visually separated and observed as a single peak with a clear, non-splitting apex. Peak fronting/tailing, if observed, does not preclude the detection of closely eluting peaks. A minimum S/N =3 is observed.

Repeatability: Individual migration times measured are within 0.3 minutes of the average of 29 injections.