SFL2

Method: SFL2

Identification of Controlled and Non-controlled Substances by Solid-Phase Infrared Spectroscopy

Scope: General purpose

Sample Preparation:

Sample will be analyzed directly or prepared for analysis by recovery of analyte(s) from a liquid, sublimation, or extraction with appropriate solvents including, but not limited to, chloroform, methanol, acetone, hexane, ethyl ether, petroleum ether, and recovery of analyte(s) from such extractions, with or without recrystallization.

Method Parameters:

Instrument: Thermo Scientific Nicolet IS10
Number of Background Scans: 4 Scans
Minimum Number of Sample Scans: 4 Scans
Scan Range: 600-4000 cm^{-1}
Sample Gain: 1.0-8.0 (Autogain)
Resolution: 4.000 cm^{-1}
Optical Velocity: 0.4747 cm/s
Aperture: 150.00 (open)
Accessory: Smart iTX

Limitations: See individual instrument validation reports.

Acceptance Criteria (unless otherwise noted in individual validation report):

Accuracy: Analyte spectra are compared to a verified reference database, commercial library, published spectra or spectra from another ISO/IEC 17025 accredited laboratory. The overall sample spectral pattern corresponded to that of the reference spectrum; the prominent measured signals in the sample spectra were all within 4 cm^{-1} of those in the reference spectrum; and there were no prominent extraneous signals present in the sample spectrum.

Repeatability and Reproducibility: The repeatability and reproducibility of confirmatory methods is established via evaluation of system-wide historical spectral data.

SFL2

Method: SFL2-Transmittance

Identification of Controlled and Non-controlled Substances by Solid-Phase Infrared Spectroscopy

Scope: Limited purpose (analysis of phenformin HCl)

Sample Preparation:

Sample will be analyzed by placing directly on salt plate (invisible to IR) or prepared for analysis by recovery of analyte(s) from a liquid, sublimation, or extraction with appropriate solvents including, but not limited to, chloroform, methanol, acetone, hexane, ethyl ether, petroleum ether, and recovery of analyte(s) from such extractions, with or without recrystallization.

Method Parameters:

Instrument: Thermo Scientific Nicolet IS10
Number of Background Scans: 4 Scans
Minimum Number of Sample Scans: 4 Scans
Scan Range: 400-4000 cm^{-1}
Sample Gain: 1.0
Resolution: 4.000 cm^{-1}
Optical Velocity: 0.4747
Aperture: 80.00 (Medium Resolution)
Accessory: Smart Omni-Transmission Accessory

Limitations: See individual instrument validation reports.

Acceptance Criteria (unless otherwise noted in individual validation report):

Accuracy: Analyte spectra are compared to a verified reference database, commercial library, published spectra or spectra from another ISO/IEC 17025 accredited laboratory. The overall sample spectral pattern corresponded to that of the reference spectrum; the prominent measured signals in the sample spectra were all within 4 cm^{-1} of those in the reference spectrum; and there were no prominent extraneous signals present in the sample spectrum.

Repeatability and Reproducibility: The repeatability and reproducibility of confirmatory methods is established via evaluation of system-wide historical spectral data.