HPLC Method for Analysis of Aniline on Primesep 100 Column

Separation type: Liquid Chromatography Mixed-mode SIELC Technologies

Aniline is an organic compound consists of a phenyl group attached to an amino group.

Chemical Properties: Aniline is a primary aromatic amine. It is a colorless to slightly yellow liquid with a characteristic odor.

Production: Aniline is produced by the reduction of nitrobenzene or by the catalytic hydrogenation of nitrobenzene.

Uses: Aniline is a precursor to many industrial chemicals. It is used in the manufacture of polyurethane foam, rubber chemicals, dyes, agricultural chemicals, and pharmaceuticals. Aniline derivatives are also used as intermediates in the production of pigments and perfumes.

Toxicity: Aniline is toxic and can be absorbed through the skin, inhaled, or ingested. It can cause methemoglobinemia, a condition where hemoglobin is converted to methemoglobin, which cannot carry oxygen efficiently.

Aniline can be retained and analyzed using a Primesep 100 mixed-mode stationary phase column. The analysis employs an isocratic method with a simple mobile phase comprising water, acetonitrile (MeCN), and sulfuric acid as a buffer. This method allows for detection using UV 200 nm

Method Parameters

Column	Primesep 100, 4.6 x 150 mm, 5 µm, 100 Å, dual ended
Mobile Phase	MeCN – 45%
Buffer	H2SO4 -0.05%
Flow Rate	1.0 mL/min
Detection	UV 200 nm
Injection Volume	1 µl

Quelle: https://sielc.com/hplc-method-for-aniline

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