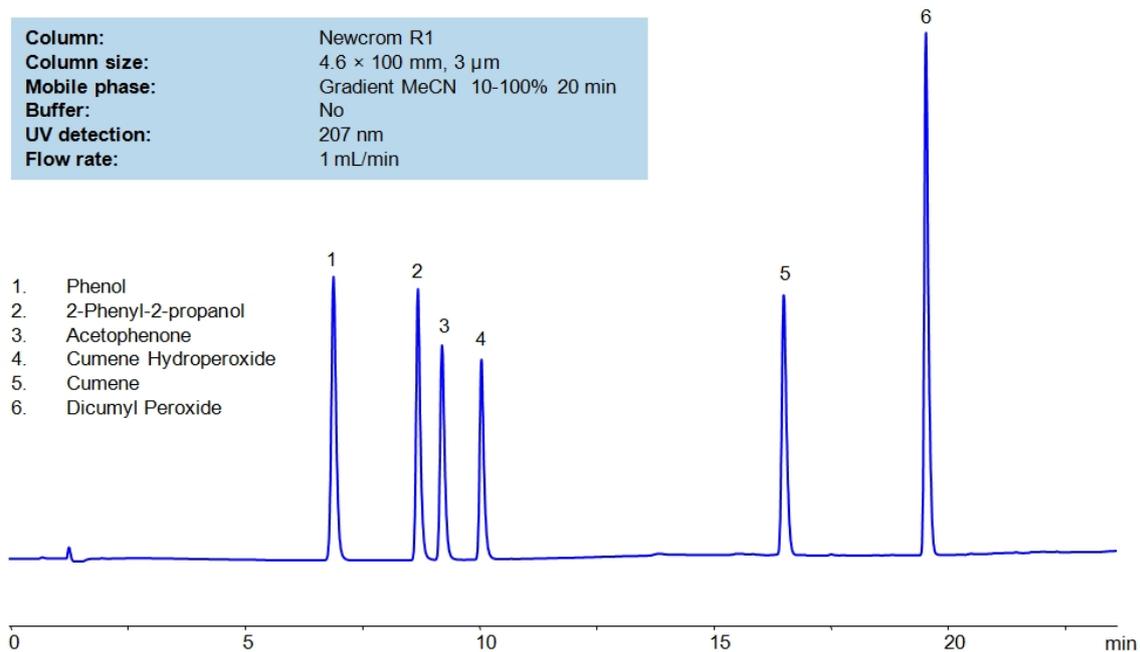


HPLC Method for Phenol – Acetone Production and Impurities

Column:	Newcrom R1
Column size:	4.6 × 100 mm, 3 µm
Mobile phase:	Gradient MeCN 10-100% 20 min
Buffer:	No
UV detection:	207 nm
Flow rate:	1 mL/min



High Performance Liquid Chromatography (HPLC) Method for Analysis of Phenol, 2-Phenyl-propanol, Acetophenone, Cumene Hydroperoxide, Cumene, Dicumyl Peroxide

Phenol is an organic compound with the molecular formula C_6H_5OH .

Properties: Appearance: Typically white crystals that turn a light pink due to oxidation.

Molecular weight: ~94.11 g/mol

Solubility: Soluble in water and alcohol.

Uses: Topical skin disinfectant.

2-Phenyl-propanol is an organic compound with the molecular formula $C_9H_{12}O$.

Properties: Appearance: Typically a white or yellow odorless solid.

Molecular weight: ~136.19 g/mol

Solubility: Soluble in organic solvents.

Uses: Organic synthesis.

Acetophenone is an aromatic ketone with the molecular formula $C_6H_5COCH_3$.

Properties: Appearance: Typically a colorless or yellow liquid with a pungent odor.

Molecular weight: ~120.4 g/mol

Uses: Fragrance ingredient.

Cumene Hydroperoxide is an organic compound with the molecular formula C₉H₁₂O₂ .

Molecular weight: ~152.19 g/mol

Uses: Used in production of phenol and acetone.

Cumene is a hydrocarbon with the molecular formula C₉H₁₂ .

Properties: Appearance: Typically a colorless liquid with a pungent odor.

Molecular weight: ~120.19 g/mol

Dicumyl Peroxide is a organic peroxide with the molecular formula C₁₈H₂₂O₂ .

Properties: Appearance: Typically white crystals.

Molecular weight: ~270.37 g/mol

Uses: Used in production of rubber and plastics. Phenol, 2-Phenyl-propanol, Acetophenone, Cumene Hydroperoxide, Cumene, and Dicumyl Peroxide can be retained and analyzed using the Newcrom R1 stationary phase column. The analysis utilizes an gradient method with a simple mobile phase consisting of water, acetonitrile (MeCN). Detection is performed using UV.

Phenol, 2-Phenyl-propanol, Acetophenone, Cumene Hydroperoxide, Cumene, Dicumyl Peroxide can be retained and analyzed using the Newcrom R1 stationary phase column. The analysis utilizes a gradient method with a simple mobile phase consisting of water, acetonitrile (MeCN). Detection is performed using UV.

Method Parameters

Column	Newcrom R1, 4.6 x 100 mm, 3 µm, 100 Å, dual ended
Mobile Phase	Gradient MeCN – 10-100%, 20 min
Buffer	No
Flow Rate	1.0 mL/min
Detection	UV, 207 nm

Quelle: <https://sielc.com/hplc-method-for-phenol-acetone-production-and-impurities>