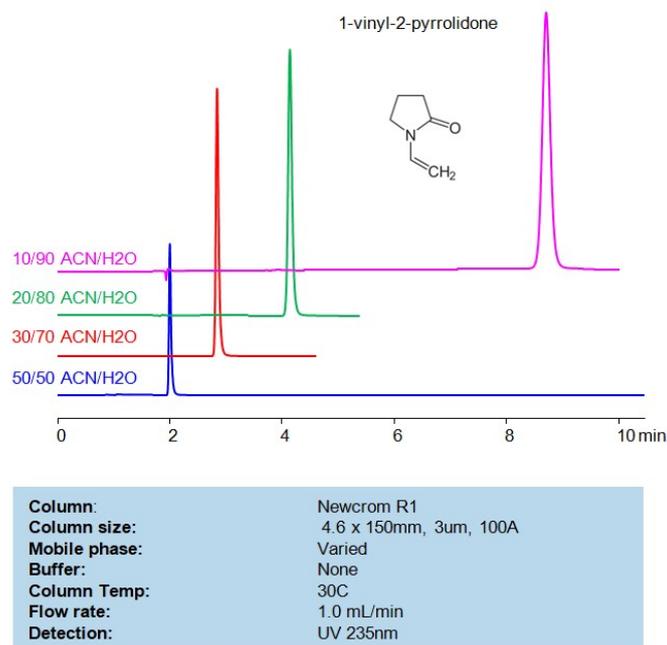


HPLC Method for Analysis 1-vinyl-2-pyrrolidone on Newcrom R1 Column



Separation type: Liquid Chromatography Reversed-phase

1-Vinyl-2-pyrrolidone (N-vinyl-2-pyrrolidone or NVP) is a chemical compound with the molecular formula C₆H₉NO. It is a colorless to slightly yellow liquid at room temperature. NVP is a member of the pyrrolidone family and is commonly used as a monomer in the production of various polymers, particularly in the synthesis of polyvinylpyrrolidone (PVP).

NVP is known for its versatility and is utilized in a wide range of applications including pharmaceuticals, personal care products, adhesives, coatings, and as a precursor in the synthesis of specialty chemicals. Its properties, such as solubility in water and various organic solvents, as well as its ability to form hydrogen bonds, make it valuable in these applications. In pharmaceuticals, NVP is used in drug delivery systems, as a binder in tablets, and in topical formulations. In personal care products, it is found in hair care products, skin creams, and dental products due to its film-forming and adhesive properties. Additionally, it is used in adhesives and coatings for its ability to improve adhesion and film formation.

1-vinyl-2-pyrrolidone can be retained and analyzed on a reversed-phase Newcrom R1 column with a mobile phase consisting of water and Acetonitrile (MeCN) This analytical method can be detected with high resolution and peak symmetry at a wavelength of 235 nm using UV detection

Method Parameters

Column	(Column variation not found)
Mobile Phase	MeCN/H2O
Buffer	None
Flow Rate	0.5 mL/min
Detection	UV 235 nm
Sample	1 mg/ml
Injection Volume	3 µL

Quelle: <https://sielc.com/hplc-determination-of-1-vinyl-2-pyrrolidone>