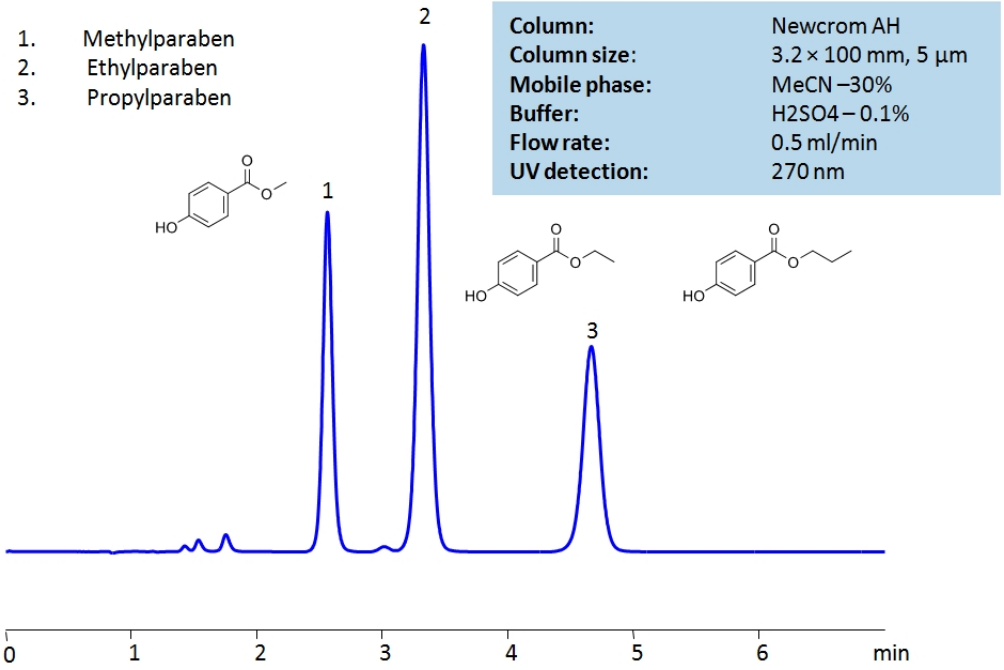
HPLC Analysis of Paraben Preservatives on Newcrom AH Column



High Performance Liquid Chromatography (HPLC) Method for Analysis of Ethylparaben , Methylparaben sodium , Propylparaben sodium , Methylparaben , Parabens , Propylparaben .

Methylparaben, also known as Methyl 4-hydroxybenzoate, is a paraben with the chemical formula C8H8O3 . It is used as a preservative in food, cosmetics, and pharmaceuticals as it is said to have antimicrobial and antifungal properties. It is considered safe for use in low concentrations, but it may cause irritation or contact dermatitis in rare cases and for those who are allergic.

Ethylparaben is an ethyl ester of p-hydroxybenzoic acid with the chemical formula C9H10O3 . It is used as a preservative in food, cosmetics, and pharmaceuticals due to it's antimicrobial and antifungal properties. There are ongoing debates in regards to it's safety as it relates to human consumption,

Propylparaben is a n-propyl ester with the chemical formula C10H12O3 . It is used as a preservative in food, cosmetics, and personal care products due to it's antimicrobial properties. Studies show that it absorbs through the skin and remains in the body, leading to the European Union banning it. California had banned it for use in food, but not in other uses.

You can find detailed UV spectra of Methylparaben and information about its various lambda maxima by visiting the following link.

You can find detailed UV spectra of Ethylparaben and information about its various lambda maxima by visiting the following link.

You can find detailed UV spectra of Propylparaben and information about its various lambda maxima by visiting the following link.

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Ethylparaben , Methylparaben sodium , Propylparaben sodium , Methylparaben , Parabens , Propylparaben can be retained and analyzed using the Newcrom AH stationary phase column. The analysis utilizes an isocratic method with a simple mobile phase consisting of water and acetonitrile (MeCN) with a sulfuric acid buffer. Detection is performed using UV.

Method Parameters

Column	Newcrom AH, 3.2 x 100 mm, 5 µm, 100 Å, dual ended
Mobile Phase	MeCN/H2O – 30/70%
Buffer	H2SO4 – 0.1%
Flow Rate	0.5 mL/min
Detection	UV, 270 nm

Quelle: https://sielc.com/hplc-analysis-of-paraben-preservatives