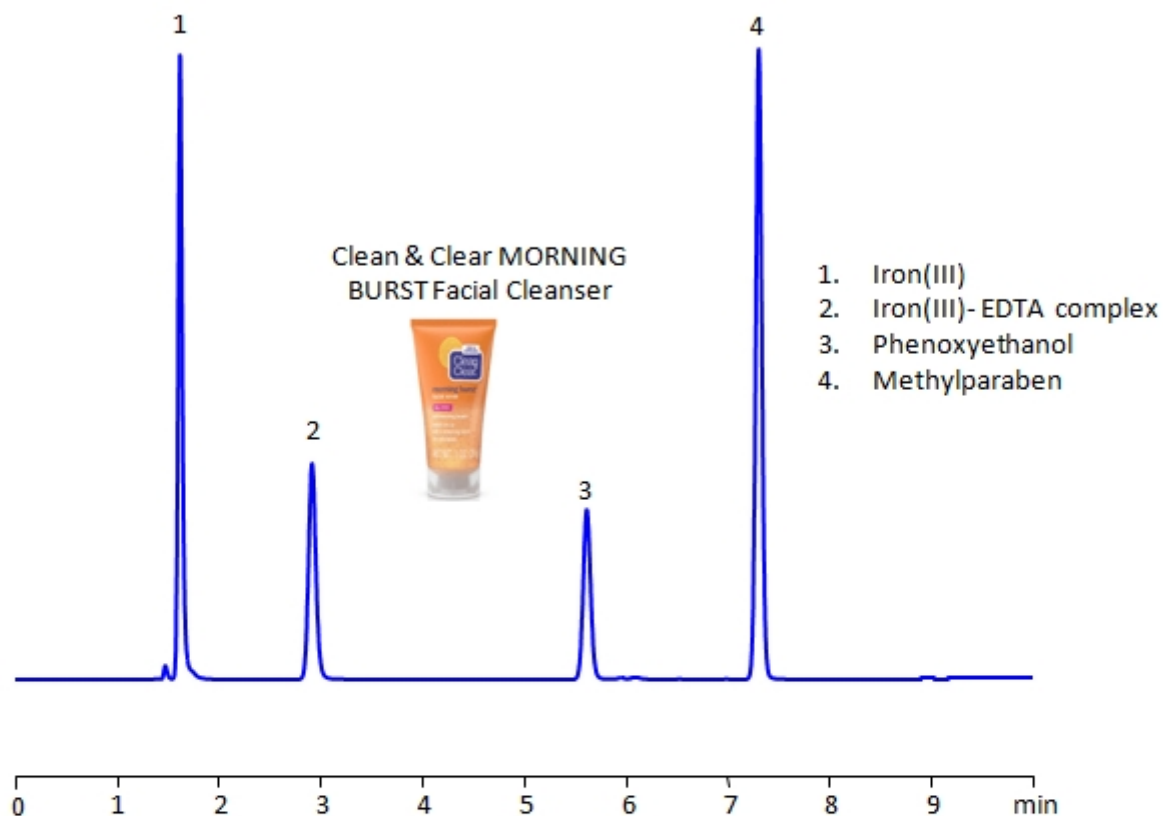


# HPLC Determination of EDTA, Phenoxyethanol and Methylparaben in Facial Cleanser on Newcrom BH

<https://sielc.com/hplc-determination-of-edta-phenoxyethanol-and-methylparaben>

## Chromatogram



<b>Column:</b>	Newcrom BH
<b>Column size:</b>	4.6 × 150 mm, 5 µm
<b>Mobile phase:</b>	Gradient MeCN – 2-70%, 10 min
<b>Buffer:</b>	H <sub>2</sub> SO <sub>4</sub> – 0.1%
<b>Flow rate:</b>	1 ml/min
<b>UV detection:</b>	260 nm
<b>Injection volume:</b>	5 µL
<b>Sample:</b>	100 mg of sample, 300 µL of 10 mg/mL FeCl <sub>3</sub> ·6H <sub>2</sub> O, and 600 µL of water. Filtered the solution through 0.45µm filter

## Description

High Performance Liquid Chromatography (HPLC) Method for Analysis of EDTA (Ethylenediaminetetraacetic Acid) , Methylparaben , Methylparaben sodium , 2-Phenoxyethanol .

Ethylenediaminetetraacetic acid (EDTA) is a synthetic amino acid with the chemical formula C<sub>10</sub> H<sub>16</sub> N<sub>2</sub> O<sub>8</sub> . It is typically used in industry to sequester metal ions, which helps prevent change of colors in textiles and uneven bleaching in paper. Due to it being a chelator, it is also used to soften water during laundry, remove hydrogen sulfide from gas streams, as well as treat mercury and lead poisoning.

Phenoxyethanol is a synthetic compound with the chemical formula  $C_8H_{10}O_2$ . It is said to have antimicrobial and preservative properties, leading to wide use of it in cosmetics, medicine, and biocides. It is considered safe in the US and Europe at limited concentrations.

Methylparaben, also known as Methyl 4-hydroxybenzoate, is a paraben with the chemical formula  $C_8H_8O_3$ . 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.

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

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

EDTA (Ethylenediaminetetraacetic Acid), Methylparaben, Methylparaben sodium, 2-Phenoxyethanol can be retained and analyzed using the Newcrom BH stationary phase column. The analysis utilizes a gradient method with a simple mobile phase consisting of water and acetonitrile (MeCN) with a sulfuric acid buffer. Detection is performed using UV.

#### Method Parameters

<b>Mobile Phase</b>	Gradient MeCN – 2- 70%, 10 min
<b>Buffer</b>	H <sub>2</sub> SO <sub>4</sub> – 0.1%
<b>Flow Rate</b>	1.0 ml/min
<b>Detection</b>	UV 260nm
<b>Class of Compounds</b>	Acid, Hydrophilic, Preservatives
<b>Analyzing Compounds</b>	EDTA (Ethylenediaminetetraacetic Acid), Methylparaben, Methylparaben sodium, 2-Phenoxyethanol

#### HPLC Column Used

**Newcrom BH, 4.6 x 150 mm, 5 µm, 100 A, dual ended**

[Order this column at hplc-shop.de](http://hplc-shop.de) →