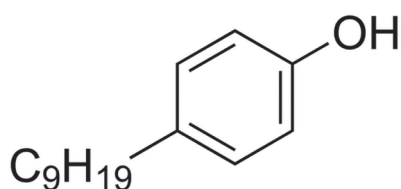
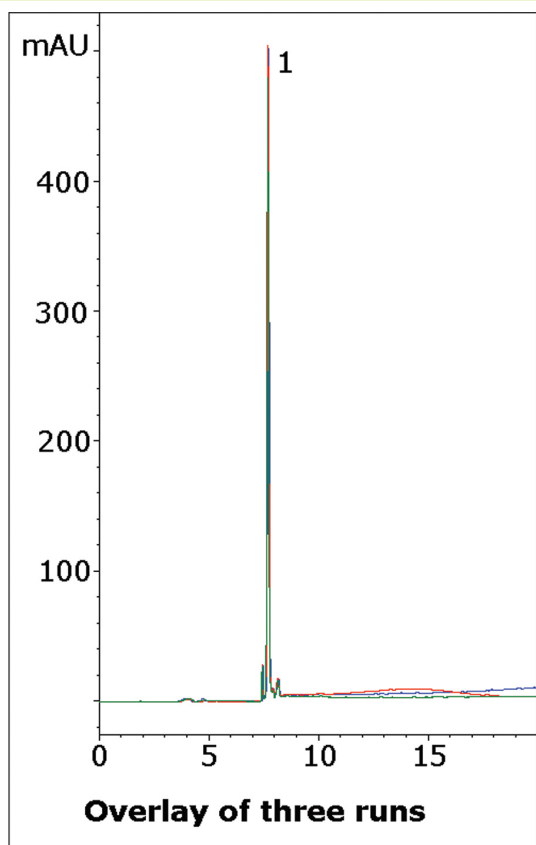


# Nonylphenol

## Separation from isomer peaks



Nonylphenol

**Note:** Nonylphenols are used in synthesis as a starting material for various surfactants. They are subjected to ethoxylation to produce alkylphenol ethoxylates

### Method Conditions

**Column:** Cogent Silica-C™, 4µm, 100Å

**Catalog No.:** 40000-10P

**Dimensions:** 4.6 x 100 mm

**Mobile Phase:** A: Ethyl acetate  
B: Hexane

Gradient:	time (min.)	%B
	0	100
	4	100
	19	90
	20	100

**Post Time:** 3 min

**Injection vol.:** 1µL

**Flow rate:** 1.0mL/min

**Detection:** UV 277 nm

**Sample:** Nonylphenol reference standard dissolved in a hexane diluent.

**t<sub>0</sub>:** 1.3 min

### Discussion

Nonylphenol is a very hydrophobic compound and is suitable for analysis by normal phase. It is produced commercially by acid-catalyzed alkylation of phenol with a mixture of nonenes. Therefore a variety of product isomers are possible, with different branching of the C9 group and position of the chain on the ring. Normal phase is well-suited to isomer separations and in this method, separation was observed between the main peak and two smaller peaks.

Three runs are shown to illustrate the repeatability, which is often a concern with normal phase methods that use ordinary silica columns.