

# Detection of Hair Dye Components (I)

## Conditions

Columns: ACE Excel 5 C18-Amide  
Dimensions: 250 x 4.6 mm  
Part Numbers: EXL-1212-2546U  
Buffer: Phosphoric acid solution - 10 mL H<sub>3</sub>PO<sub>4</sub> + 90 mL H<sub>2</sub>O  
Phosphate buffer - 1.8 g Na<sub>2</sub>HPO<sub>4</sub>·12H<sub>2</sub>O + 2.8 g KH<sub>2</sub>PO<sub>4</sub> + 1 g NaSO<sub>3</sub>(CH<sub>2</sub>)<sub>6</sub>CH<sub>3</sub>, dilute to 1 L with H<sub>2</sub>O  
Final buffer solution - Add phosphoric acid solution to phosphate buffer and adjust to pH 6  
Mobile Phase: MeCN/buffer solution (10:90 v/v)  
Flow Rate: 1.0 mL/min  
Injection: 5 µL  
Temperature: 25 °C  
Detection: UV, 280 nm  
Method: Cosmetics Safety Specification, 2015

Application #AN6660

1. *p*-Phenylenediamine
2. *p*-Aminophenol
3. Toluene-2,5-diaminosulfate
4. *m*-Aminophenol
5. *o*-Phenylenediamine
6. 2-Chloro-*p*-phenylenediamine
7. *o*-Aminophenol
8. Resorcinol
9. 2-Nitro-*p*-phenylenediamine
10. Toluene-3,4-diamine
11. 4-Amino-2-Hydroxytoluene
12. 2-Methylresorcinol
13. 6-Amino-*m*-cresol
14. Phenyl methyl pyrazolone
15. N,N-Diethyltoluene-2,5-diamine sulfate
16. 4-Amino-3-nitrophenol

