



# Hair Dye Restricted Components #1

## ACE Excel C18-Amide

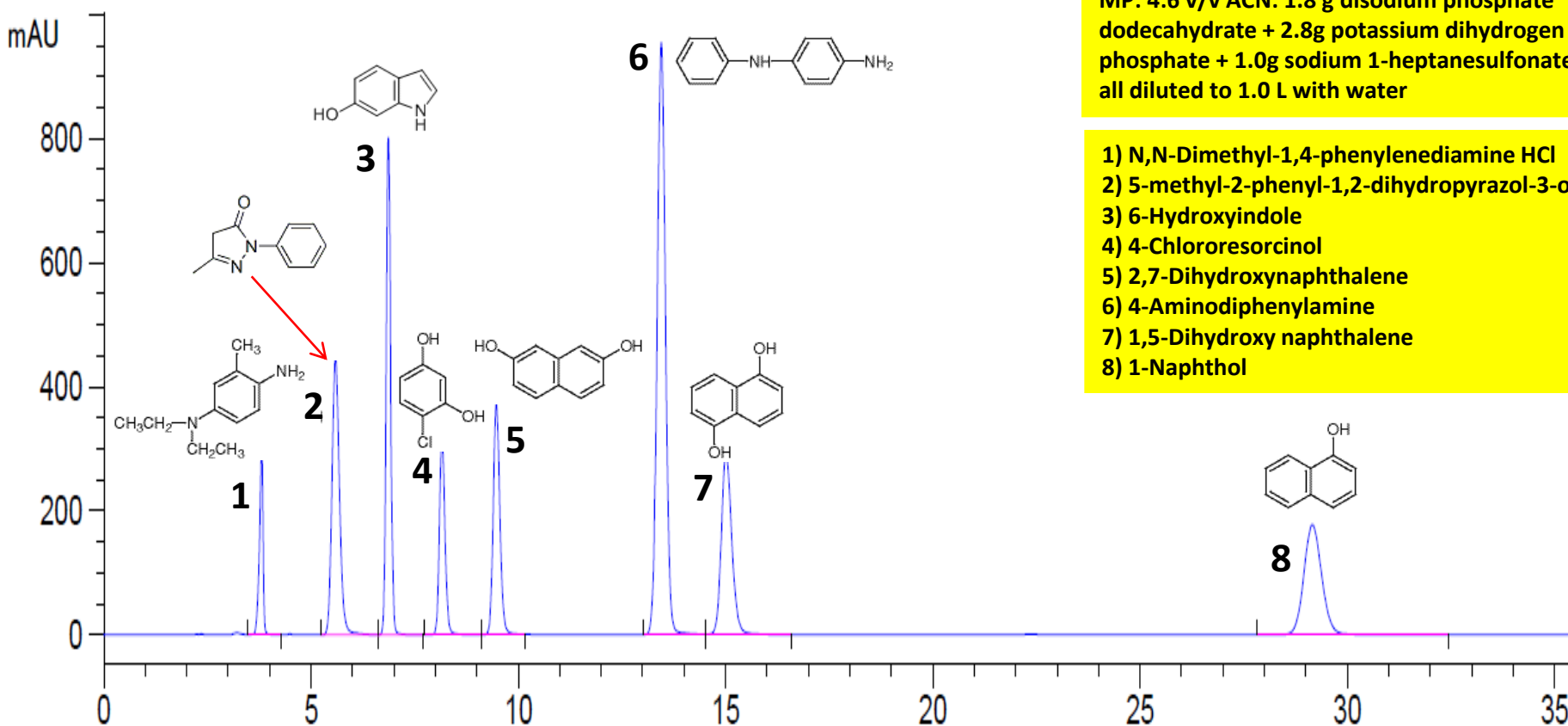
Based on Chinese  
National Testing Method

5 $\mu$ m, 250 x 4.6 mm  
Isocratic analysis

Flow rate: 1.0 mL/min  
Temperature: 60°C  
Detection: UV 280 nm

MP: 4:6 v/v ACN: 1.8 g disodium phosphate  
dodecahydrate + 2.8g potassium dihydrogen  
phosphate + 1.0g sodium 1-heptanesulfonate  
all diluted to 1.0 L with water

- 1) N,N-Dimethyl-1,4-phenylenediamine HCl
- 2) 5-methyl-2-phenyl-1,2-dihydropyrazol-3-one
- 3) 6-Hydroxyindole
- 4) 4-Chlororesorcinol
- 5) 2,7-Dihydroxynaphthalene
- 6) 4-Aminodiphenylamine
- 7) 1,5-Dihydroxy naphthalene
- 8) 1-Naphthol



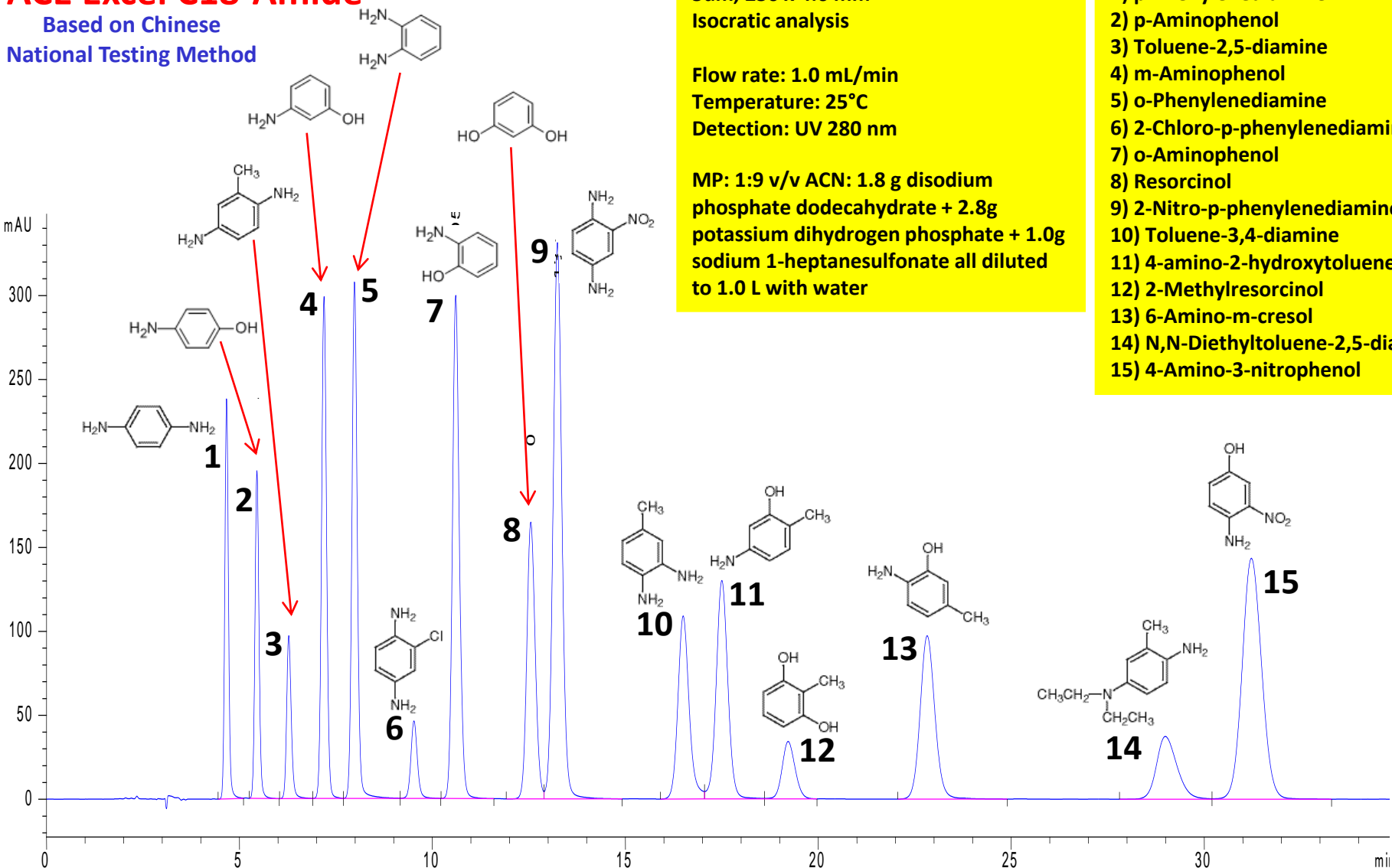


# Hair Dye Restricted Components #2

## ACE Excel C18-Amide

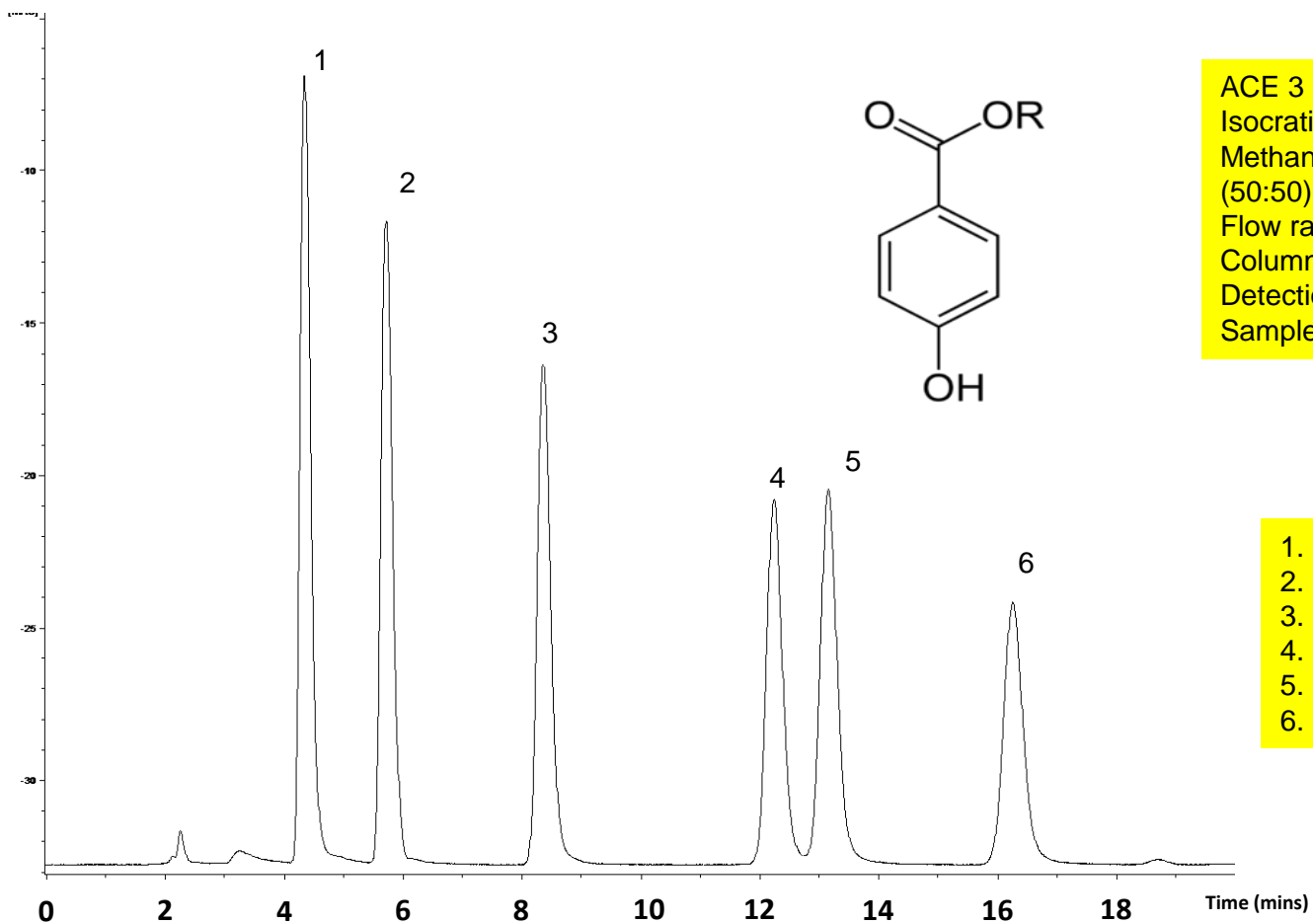
Based on Chinese

National Testing Method





# Paraben Preservatives



ACE 3 Phenyl, 150 x 2.1mm  
Isocratic  
Methanol – 25mM NH<sub>4</sub>OAc  
(50:50), pH 6.8  
Flow rate: 0.2ml/min  
Column temperature: 40°C  
Detection: UV at 240nm  
Sample volume: 2µl

1. Methylparaben
2. Ethylparaben
3. n-Propylparaben
4. i-Butylparaben
5. N-Butylparaben
6. Benzylparaben