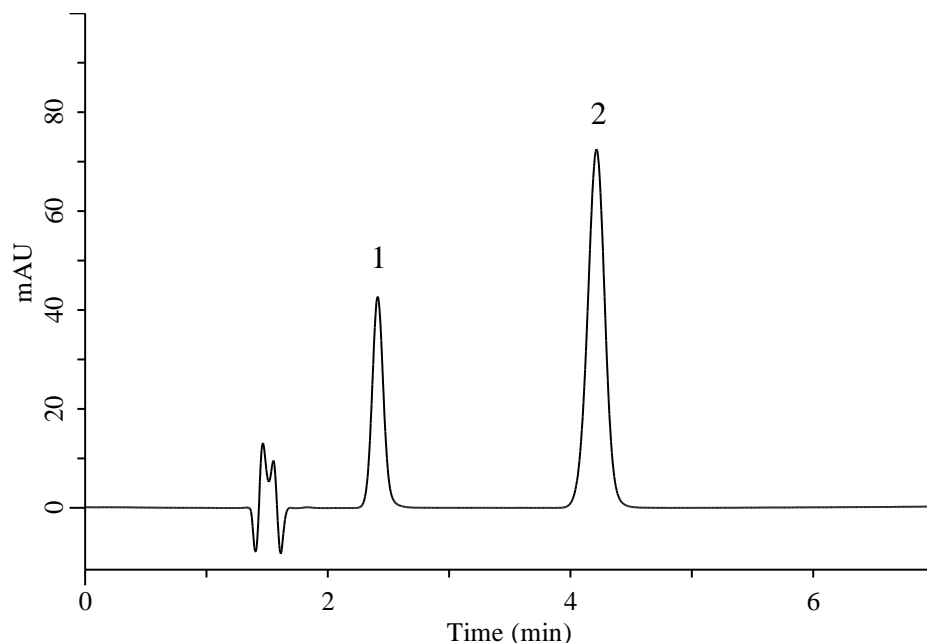


## Analysis of Sulfamethoxazole and Trimethoprim

(Under the Condition of USP43-NF38, Sulfamethoxazole and Trimethoprim Oral Suspension )



### Conditions

**System** : Chromaster HPLC system (HITACHI)  
**Column** : Inertsil WP300 C18 (GL Sciences Inc.)  
 (10  $\mu$  m, 300 x 3.9 mm I.D.)  
**Column Cat. No.** : 5020-90660  
**Eluent** : Solution\*  
**Flow Rate** : 2.0 mL/min  
**Col. Temp.** : 40 °C  
**Detection** : UV 254 nm  
**Injection Vol.** : 20  $\mu$  L  
**Sample** : Standard

### Analyte:

1. Trimethoprim      0.032 mg/mL  
 2. Sulfamethoxazole    0.032 mg/mL

### Relative retention times

Trimethoprim      : 2.41/2.41 (1.0)  
 Sulfamethoxazole    : 4.20/2.41 (1.7)

Resolution : 8.17 ( $\geq$  5.0)

### Tailing factor

peak area of 1      : 1.05 ( $\leq$  2.0)  
 peak area of 2      : 0.97 ( $\leq$  2.0)

### RSD of the

peak area of 1 (%) (n=6) : 0.33 ( $\leq$  2.0)  
 peak area of 2 (%) (n=6) : 0.42 ( $\leq$  2.0)

\* Mix 1400 mL of water, 400 mL of acetonitrile, and 2.0 mL of triethylamine in a 2000-mL volumetric flask. Allow to equilibrate to room temperature, and adjust with 0.2 N sodium hydroxide or dilute glacial acetic acid (1 in 100) to a pH of  $5.9 \pm 0.1$ . Dilute with water to volume.