

Application Report 19

Author: B Shirey

Raw Data File Name: 1701169B.D

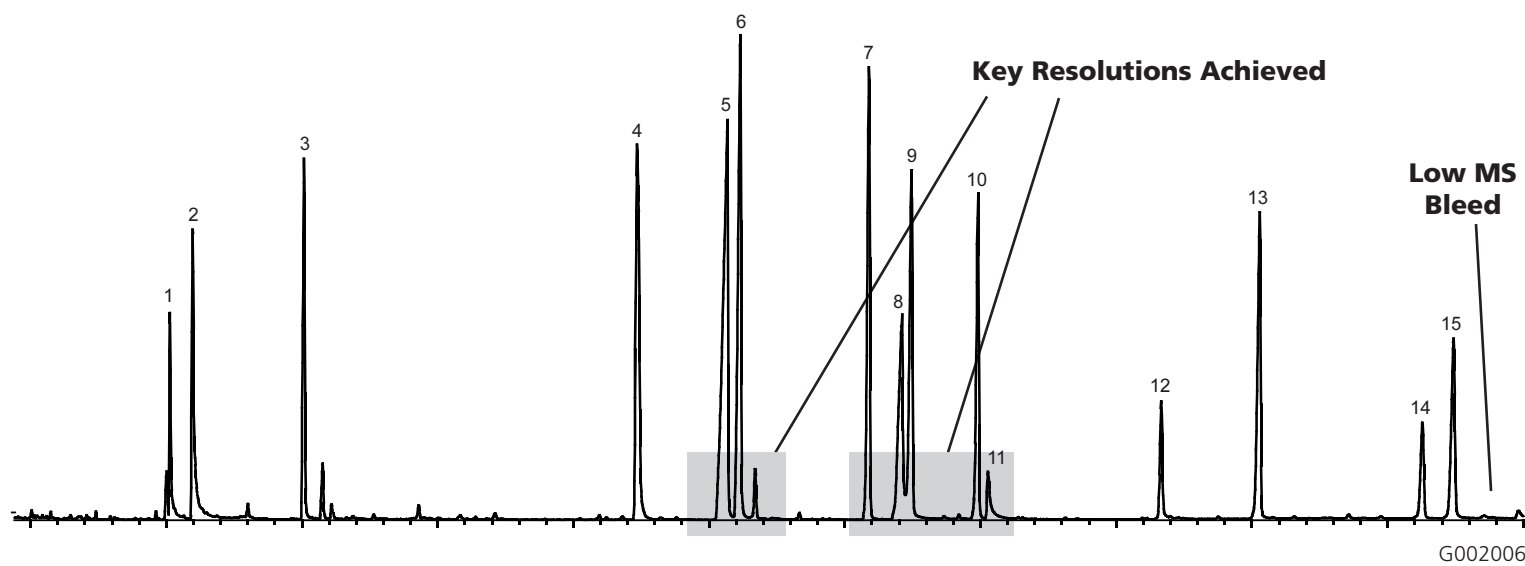
Acquisition System: 5973MSD

Drug Screen on Equity-1701

Drug screening by GC/MS is used primarily for confirmation of positive pre-screening tests. Generally the drugs are analyzed on a column with low polarity such as a 5% phenyl dimethyl silicone; however, an intermediate polarity column, such as the Equity-1701 shown in this application, can provide some advantages. The amphetamines are better focused on an intermediate polarity column, and the column shifts the elution order of some of the drugs. This can be an advantage if there are co-eluting compounds on a less polar column.

Key Words

drug screening, amphetamines, alkaloids, Equity-1701, 28372-U



G002006

Conditions

Column: Equity-1701, 30m x 0.25mm ID, 0.25 μ m
Cat. No.: 28372-U
Oven: 45°C (2 min) to 110°C @ 25°C/min to 200°C @ 15°C/min to 280°C @ 6°C/min (3 min)
Inj.: 250°C
MSD Interface: 280°C
Scan Range: 40-450 m/z
Flow: Helium, 0.7mL/min constant flow
Injection: 0.4 μ L pulsed splitless (pulsed to 40psi for 0.3 min) split open at 0.5min
Liner: 2mm ID splitless
Sample: 40ppm drug standard in methanol

Peak IDs

1. Amphetatmine
2. Methamphetamine
3. Nicotine
4. Diphenhydramine
5. Caffeine
6. Lidocaine
7. Methadone
8. Phenobarbital
9. Amitriptyline
10. Cocaine
11. Desipramine
12. Codiene
13. Diazepam
14. Heroin
15. Fentanyl