ERAS-1000-0320

SHIMADZU
Excellence in Science

CoreFocus Report

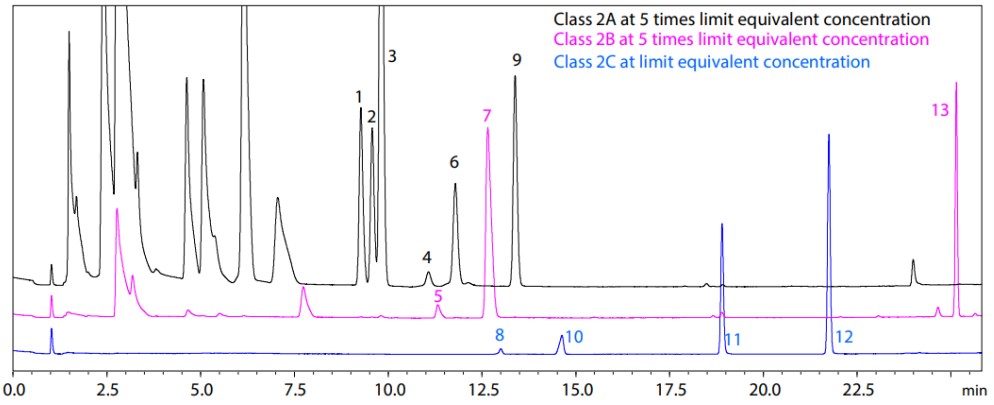
No.320

GC | FID | AOC | SH Series

SH-PolarWax

Analysis of Residual Solvents in Pharmaceuticals

Keywords: Class 2 Solvents, Water Soluble Samples



1. Ethylbenzene
2. p-Xylene
3. m-Xylene
4. Cumene
5. Nitromethane
6. o-Xylene
7. Pyridine
8. 2-Methoxyethanol
9. Chlorobenzene
10. 2-Ethoxyethanol
11. N,N-Dimethylformamide
12. N,N-Dimethylacetamide
13. Tetraline

(1 vol%)

Model	: Nexis™ GC-2030 + AOC-20i Plus
Detector	: FID-2030 flame ionization detector
Injection temperature	: 160 ˚C
Column	: SH-PolarWax (30 m x 0.53 mm I.D. df = 1 µm), P/N: 221-75979-30
Column temperature	: 50 ˚C(7 min) - 4 ˚C/min - 110 ˚C (0 min) - 10 ˚C /min - 220 ˚C (20 min*) Total: 53 min
High press injection	: High pressure injection, automatic (48 kPa, 0.5 min)
Carrier gas controller	: Pressure mode (He)
Pressure	: 26.6 kPa (during analysis)
Injection mode	: Split 1:1 (0.5 min) (during injection)

Total flow	: 23 mL/min
Linear velocity	: 37.0 cm/s (26.6 kPa, 50 ˚C)
Column flow	: 5.1 mL/min (26.6 kPa, 50 ˚C)
Purge flow	: 3 mL/min
Detector temperature	: 240 ˚C
Detector Gas	: H_2 32.0 mL/min, Air 200 mL/min
Makeup Gas	: He 24 mL/min
Injection Volume	: 1 µL
Syringe	: Elastic syringe, AOC (P/N: 221-49548)

• Since the sample solution may contain high boiling point components, it is recommended to set a long hold time at 220 ˚C.

Source : Application News G303 (JP, ENG)

Shimadzu Corporation
www.shimadzu.com/an/