SHIMADZU
Excellence in Science
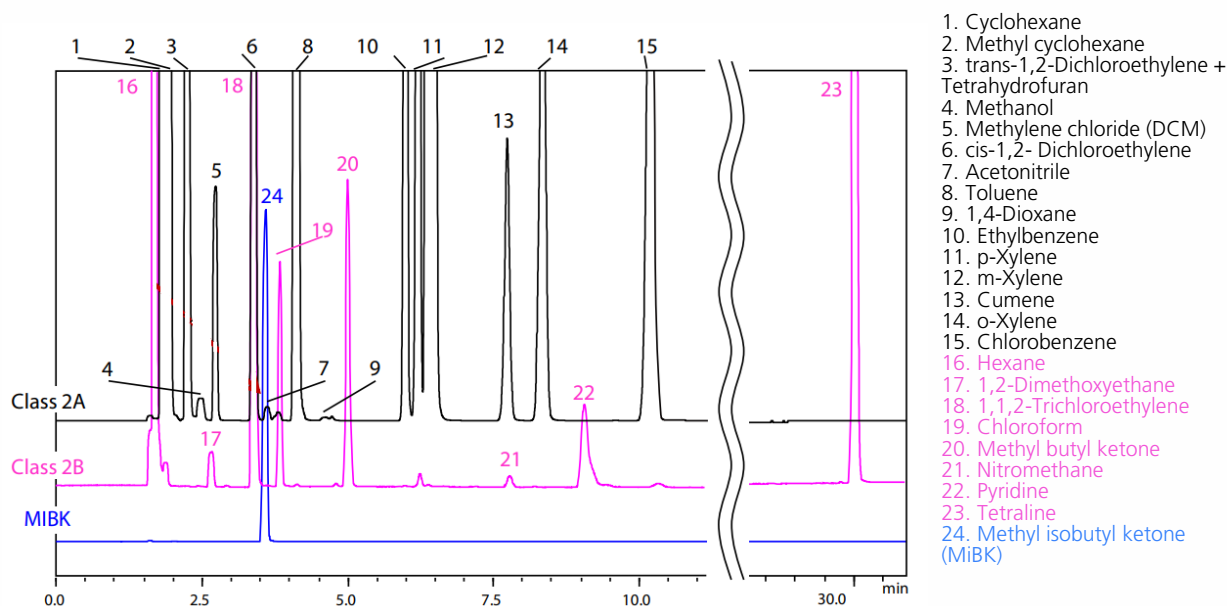
CoreFocus
Report
No.337

GC | FID | HS | SH Series

SH-PolarWax

Analysis of Residual Solvents in Pharmaceuticals

Keywords: Water-Soluble Samples, N$_2$ Carrier, JP17 Supplement II, USP 467

1. Cyclohexane
2. Methyl cyclohexane
3. trans-1,2-Dichloroethylene + Tetrahydrofuran
4. Methanol
5. Methylene chloride (DCM)
6. cis-1,2- Dichloroethylene
7. Acetonitrile
8. Toluene
9. 1,4-Dioxane
10. Ethylbenzene
11. p-Xylene
12. m-Xylene
13. Cumene
14. o-Xylene
15. Chlorobenzene
16. Hexane
17. 1,2-Dimethoxyethane
18. 1,1,2-Trichloroethylene
19. Chloroform
20. Methyl butyl ketone
21. Nitromethane
22. Pyridine
23. Tetraline
24. Methyl isobutyl ketone (MiBK)

Main Unit	: Nexis™ GC-2030
Detector	: FID-2030 flame ionization detector
Column	: SH-PolarWax (30 m x 0.32 mm I.D. df = 0.25 μm), P/N: 221-75972-30
Column Temp.	: 50 ℃(20 min) - 6 ℃/min - 165 ℃(20 min) Total 59.17 min
Injection Mode	: Split 1:10
Carrier Gas Controller	: Linear Velocity (N$_2$)
Linear Velocity	: 35 cm/s
Detector Temp .	: 250 ℃
FID H$_2$ Flow Rate	: 32 mL/min
FID Make Up Flow Rate	: 24 mL/min (N$_2$)
FID Air Flow Rate	: 200 mL
Injection Volume	: 1 mL

HS-20

Oven Temp.	: 80 ℃
Sample Line Temp.	: 110 ℃
Transfer Line Temp.	: 120 ℃
Vial Shaking Level	: Off
Vial Volume	: 20 mL
Vial Equilibrating Time	: 60 min
Vial Pressurization Time	: 1 min
Vial Pressure	: 75 kPa
Loading Time	: 0.5 min
Needle Flush Time	: 5 min

Source : Application News G325 (JP, ENG)

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