SHIMADZU
Excellence in Science

CoreFocus Report

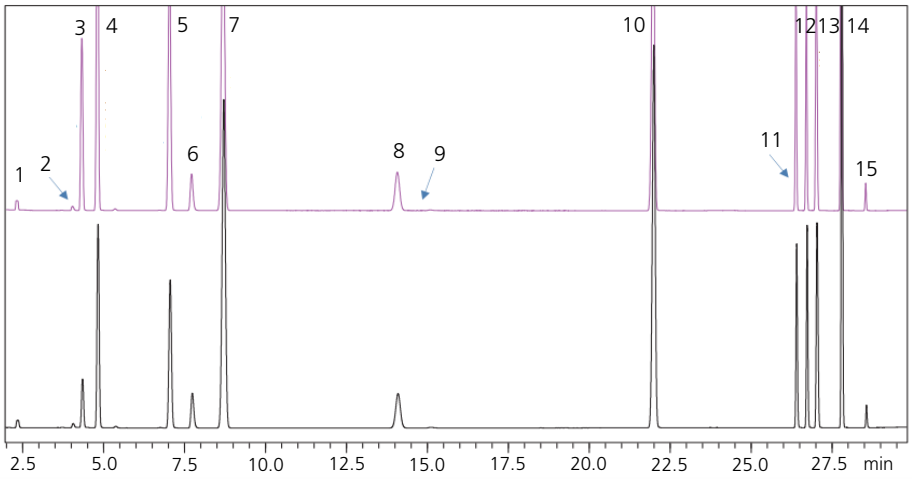
No.383

GCMS | FID | HS | SH Series

SH-I-624Sil MS

Analysis of Residual Solvents in Pharmaceuticals

Keywords: Headspace



1. Methanol
2. Acetonitrile
3. Methylene Chloride
4. *trans*-1,2-Dichloroethene
5. *cis*-1,2-Dichloroethene
6. Tetrahydrofuran
7. Cyclohexane
8. Methylcyclohexane
9. 1,4-Dioxane
10. Toluene
11. Chlorobenzene
12. Ethylbenzene
13. *m*,*p*-Xylene
14. *o*-Xylene
15. Cumene

Model	:	GCMS-QP™2020/HS-20/FID-2010 Plus Splitting System
HS		
Mode	:	Loop (volume 1 mL)
Oven temp.	:	80 ˚C
Sample line temp.	:	90 ˚C
Transfer line temp.	:	105 ˚C
Gas pressure for vial pressurization	:	76.4 kPa
Vial equilibrating time	:	45 min
Vial pressurizing time	:	2.0 min
Pressure equilibrating time	:	0.1 min
Load time	:	0.5 min
Load equilibrating time	:	0.1 min
Injection time	:	0.5 min
Needle flushing time	:	15.0 min
APC pressure	:	20 kPa

GC		
Column	:	SH-I-624Sil MS (30 m x 0.32 mm I.D., 1.8 µm) P/N : 227-36077-01
Injection mode	:	Split (Split ratio 1:5)
Control mode	:	Constant pressure (89.4 kPa)
Carrier gas	:	He
Oven temp.	:	40 ˚C (20 min) - 10 ˚C/min - 240 ˚C (20 min)
Restrictor (FID)	:	1.1 m x 0.25 mm
Restrictor (MS)	:	1.5 m x 0.20 mm
APC pressure	:	20 kPa
FID		
Temp.	:	250 ˚C
Make-up flow rate	:	30 mL/min (He)
Hydrogen flow rate	:	40 mL/min
Air flow rate	:	400 mL/min
MS		
Ion source temp.	:	200 ˚C
Interface temp.	:	250 ˚C
SCAN range	:	*m/z* 29 to 250
Event time	:	0.3 s

Source : Application News M272 (JP, ENG)

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