

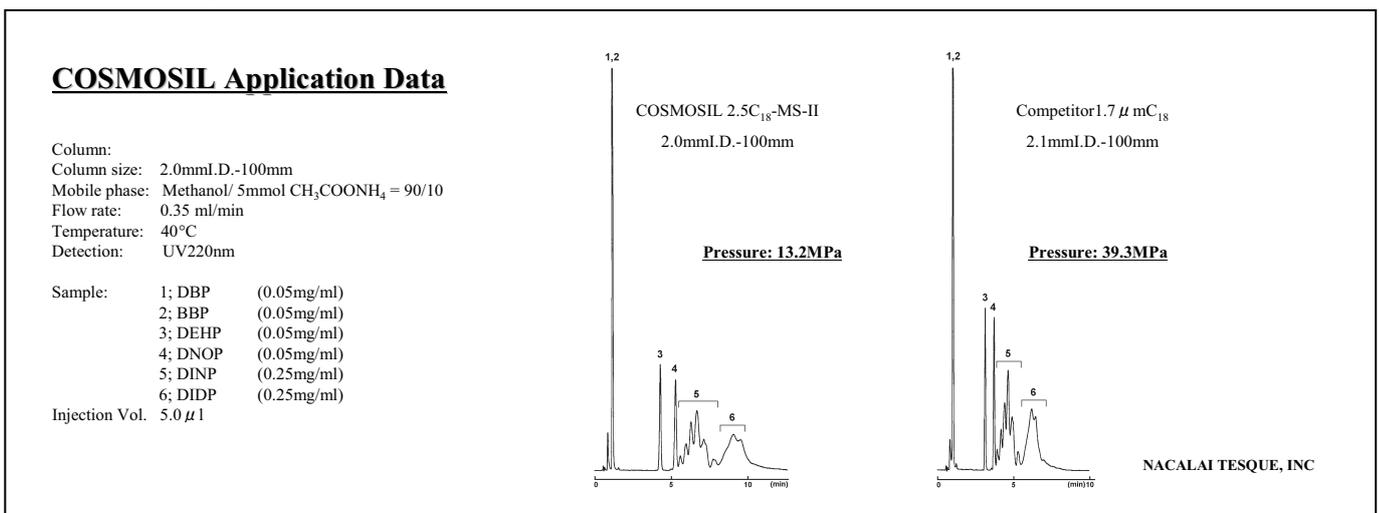
# DEHP Analysis - COSMOSIL 2.5 Series

COSMOSIL UHPLC columns with 2.5  $\mu\text{m}$  particle enables separation of DEHP (Bis(2-ethylhexyl)phthalate).

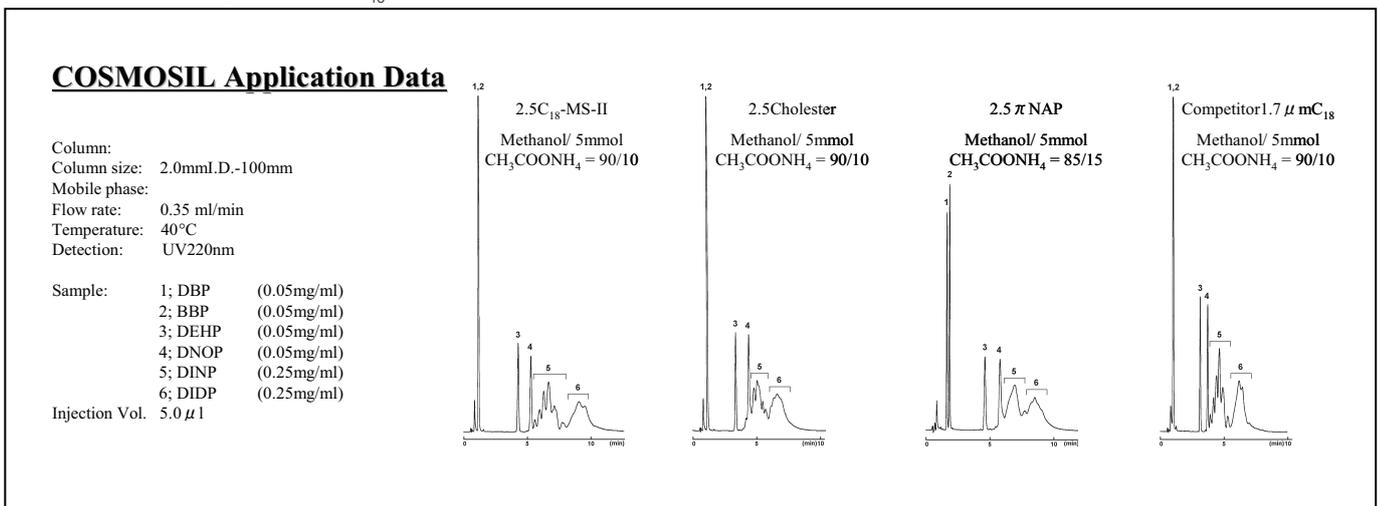
Packing Material	2.5C <sub>18</sub> -MS-II	2.5Cholester	2.5 $\pi$ NAP
Silica Gel	High Purity Porous Spherical Silica		
Average Particle Size	2.5 $\mu\text{m}$		
Average Pore Size	approx. 130 Å		
Specific Surface Area	approx. 330 m <sup>2</sup> /g		
Stationary Phase	Octadecyl Group	Cholesteryl Group	Naphtylethyl Group
Bonding Type	Monomeric		
Main Interaction	Hydrophobic Interaction	Hydrophobic Interaction Molecular Shape Selectivity	Hydrophobic Interaction $\pi$ - $\pi$ Interaction
End Capping Treatment	Near-perfect Treatment		

## ■ Analysis with Ammonium Acetate (Taiwan FDA condition)

COSMOSIL 2.5C<sub>18</sub>-MS-II shows an equivalent chromatogram compared with competitors' 1.7 $\mu\text{m}$  column. 2.5C<sub>18</sub>-MS-II has a longer retention time. Moreover, 2.5C<sub>18</sub>-MS-II can be used under 1/3 pressure of competitor's 1.7  $\mu\text{m}$  column. This is the pressure within the range of conventional HPLC equipment.

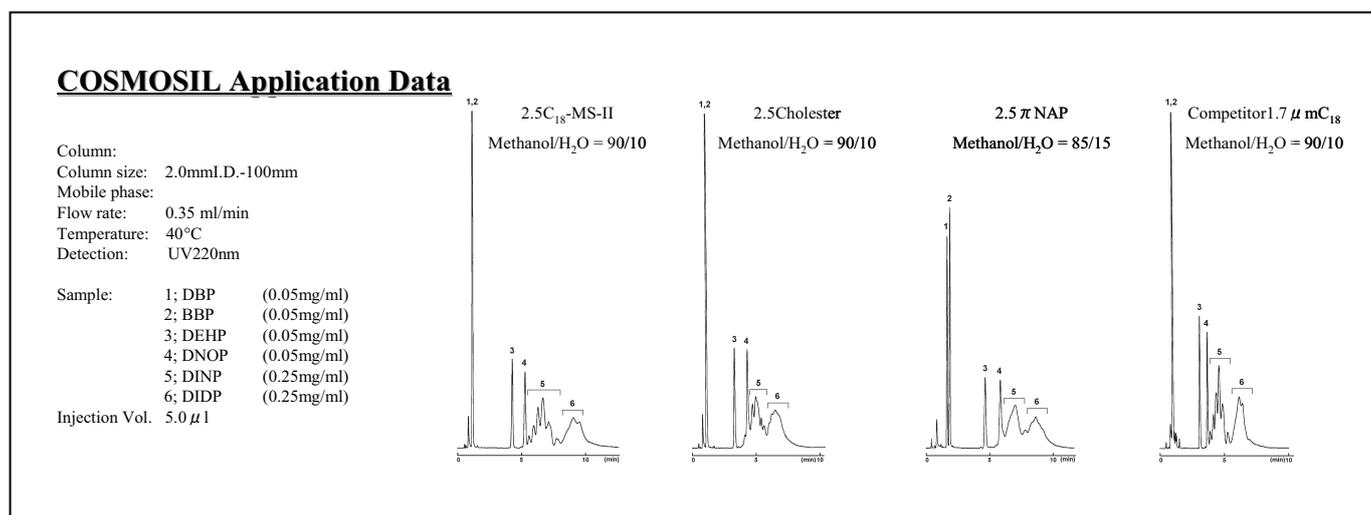
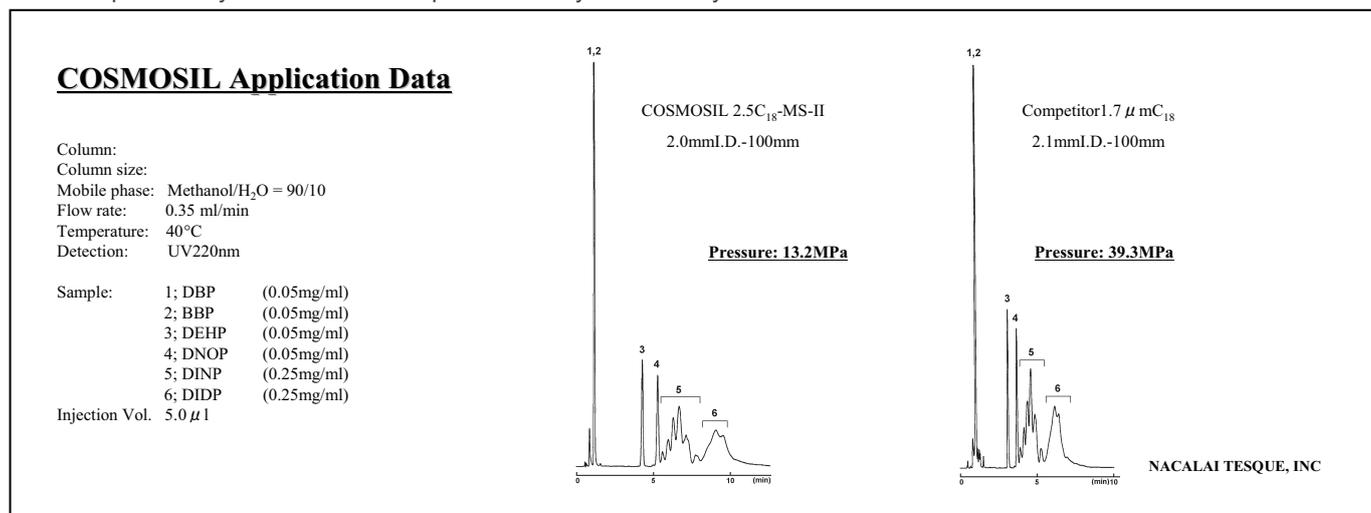


COSMOSIL 2.5 $\pi$ NAP enables separation of DBP(Dibutyl Phthalate)(Sample 1) and BBP (Butyl Benzyl Phtharate)(Sample 2) that are difficult to separate with C<sub>18</sub> columns.



## ■ Analysis without Ammonium Acetate

Taiwan FDA condition offers an analysis with 5 mmol/l ammonium acetate by LC/MS/MS to increase sensitivity. However the amount of DEHP in this case is enough to detect by UV-absorption. The followings are analysis without ammonium acetate by UV-adsorption. They show the same separation ability as the analysis with ammonium acetate.



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