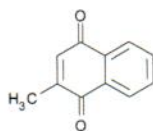


Conditions

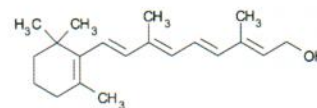
Column: ACE Excel 3 C18-Amide
Dimensions: 150 x 4.6 mm
Part Number: EXL-1112-1546U
Mobile Phase: MeOH/MeCN (90:10 v/v)
Flow Rate: 1 mL/min
Temperature: 20 °C
Detection: UV, 280 nm

Analytes

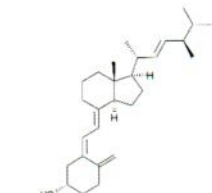
1. Menadione (Vitamin K3)
2. Retinol (Vitamin A)
3. Vitamin A acetate
4. Ergocalciferol (Vitamin D2)
5. Cholecalciferol (Vitamin D3)
6. Vitamin E acetate
7. α-Tocopherol (Vitamin E)
8. Vitamin K1



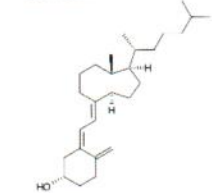
Menadione (Vitamin K3)



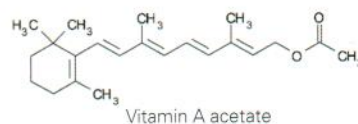
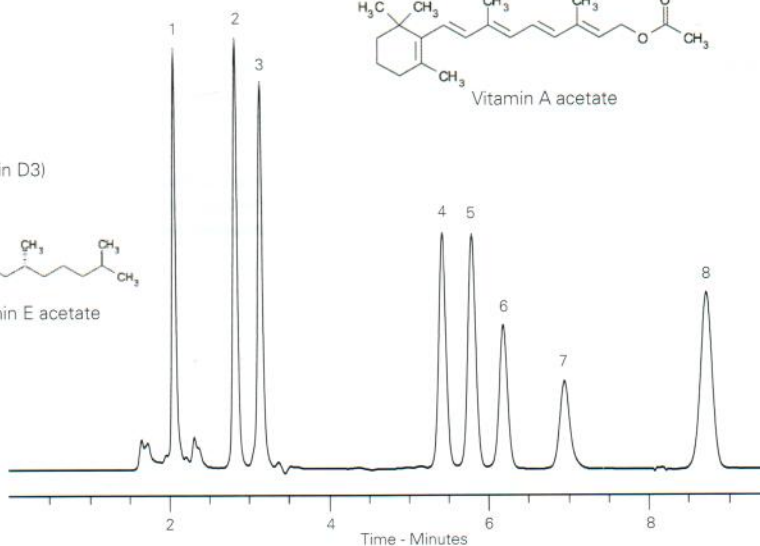
Retinol (Vitamin A)



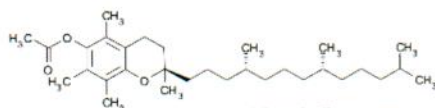
Ergocalciferol (Vitamin D2)



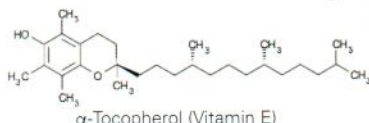
Cholecalciferol (Vitamin D3)



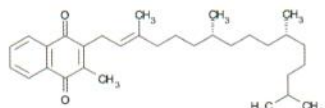
Vitamin A acetate



Vitamin E acetate



α-Tocopherol (Vitamin E)



Vitamin K1

Vitamins – Water Soluble (Gradient I)

Application #AN2940

Conditions

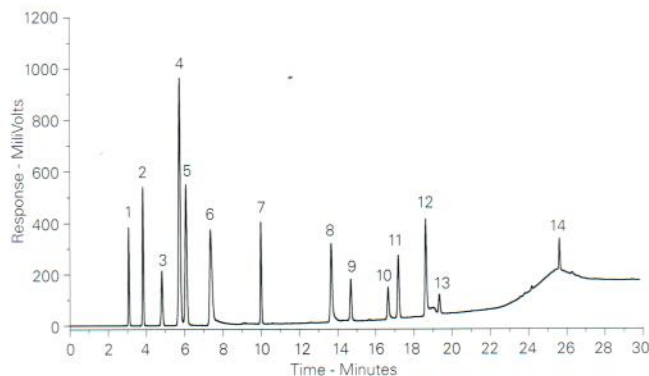
Column: ACE 5 C18
Dimensions: 250 x 4.6 mm
Part Number: ACE-121-2546
Mobile Phase: A: 50 mM KH₂PO₄ pH 3.0 in H₂O
 B: MeOH
Gradient:

Time (mins)	%B
0.0	0
3.0	0
16.5	45
19.5	80

Flow Rate: 1 mL/min
Temperature: Ambient
Detection: UV, 205 nm

Analytes

1. Pyridoxamine
2. Thiamine (Vitamin B1)
3. L-Ascorbic acid (Vitamin C)
4. Nicotinamide (Vitamin B3)
5. Nicotinic acid
6. Pyridoxal
7. Pyridoxine
8. p-Aminobenzoic acid
9. Pantothenic acid (Vitamin B5)
10. Folic acid (Vitamin B9)
11. Cyanocobalamin (Vitamin B12)
12. Riboflavin (Vitamin B2)
13. d-Biotin (Vitamin B7)
14. Thiocotic acid



Vitamins – Water Soluble (Gradient II)

Application #AN2930

Conditions

Column: ACE 5 C18
Dimensions: 250 x 4.6 mm
Part Number: ACE-121-2546
Mobile Phase: A: 50 mM KH₂PO₄ pH 3.0 in H₂O
 B: MeOH
Gradient:

Time (mins)	%B
0	3
5	3
45	45
50	80

Flow Rate: 1 mL/min
Temperature: Ambient
Detection: UV, 205 nm

Analytes

1. Pyridoxamine
2. Thiamine (Vitamin B1)
3. L-Ascorbic acid (Vitamin C)
4. Nicotinic acid
5. Pyridoxal
6. Impurity
7. Pyridoxine
8. p-Aminobenzoic acid
9. Pantothenic acid (Vitamin B5)
10. Folic acid (Vitamin B9)
11. Cyanocobalamin (Vitamin B12)
12. d-Biotin (Vitamin B7)
13. Riboflavin (Vitamin B2)

