



HPLC

APPLICATIONS

www.ace-hplc.com

Cold Medicine Components

Conditions

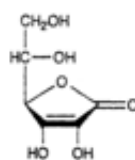
Column: Ace 5C18, 250 x 4.6mm
Part Number: ACE-121-2546
Eluent: Methanol – 50mM KH₂PO₄, pH 3.0 (50:50)
Flow Rate: 1.0ml/min
Temperature: 22°C
Detection: UV, 220nm

Compounds

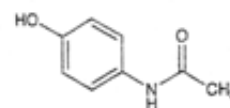
1. Vitamin C
2. Acetaminophen
3. Caffeine
4. Aspirin
5. Ethenzamide

USP Tailing Factor

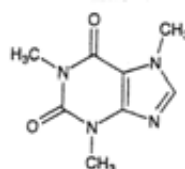
1.17
 1.18
 1.16
 1.09
 1.10



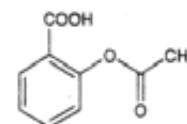
Vitamin C



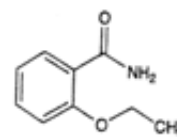
Acetaminophen



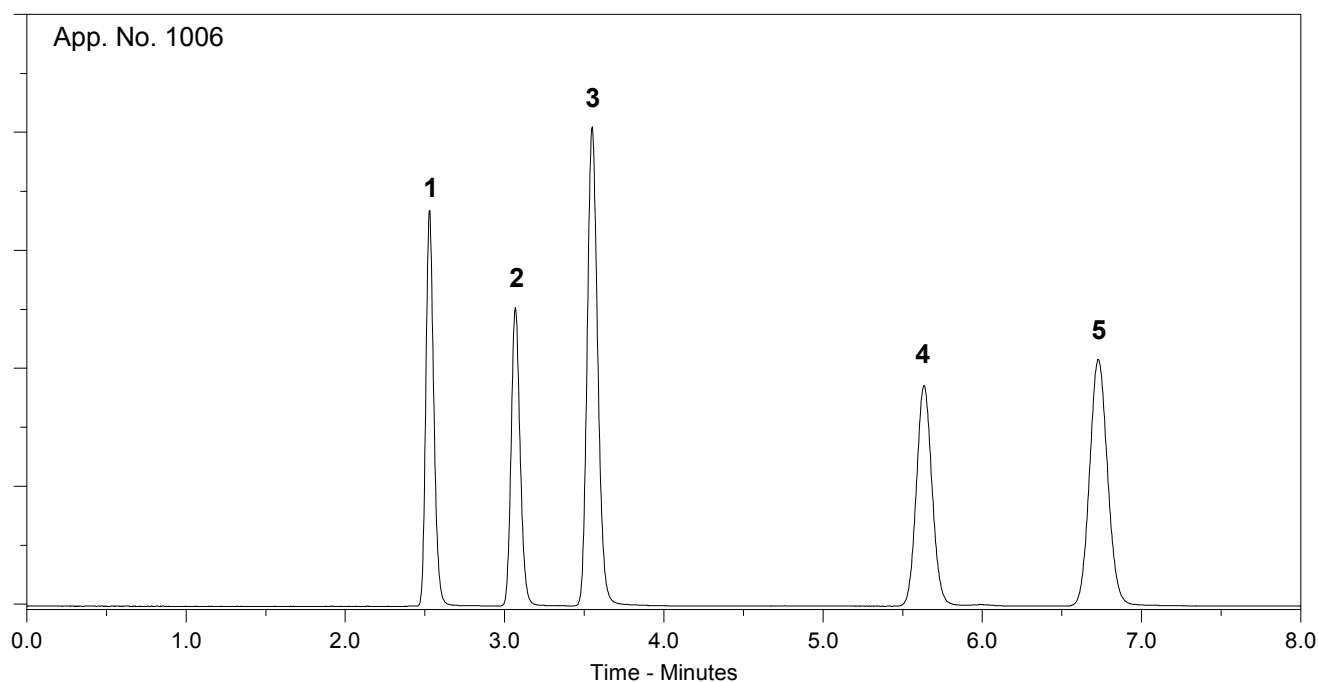
Caffeine



Aspirin



Ethenzamide

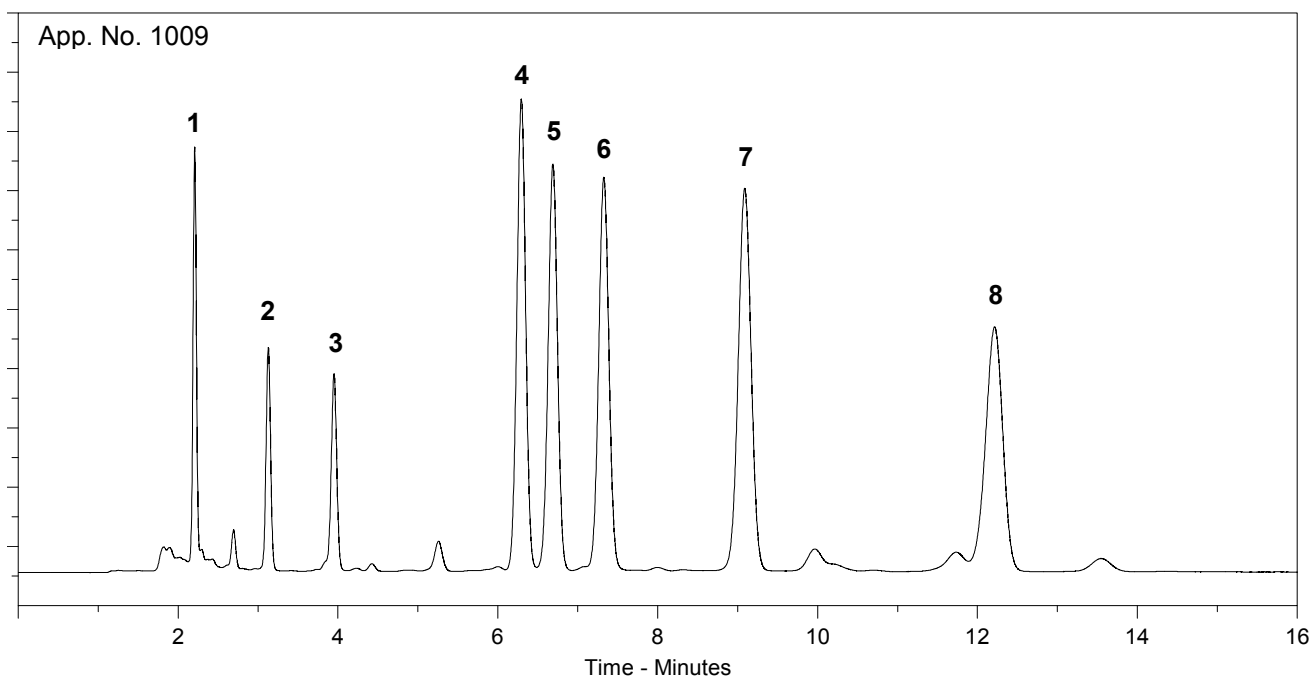


Fat Soluble Vitamins

Conditions

Column: Ace 5C18, 250 x 4.6mm
Part Number: ACE-121-2546
Eluent: Methanol
Flow Rate: 1.5ml/min
Temperature: 30°C
Detection: UV, 280nm

Compounds	USP Tailing Factor
1. Vitamin K ₃	1.06
2. Vitamin A	1.02
3. Vitamin A acetate	0.91
4. Vitamin D ₂	1.01
5. Vitamin D ₃	0.99
6. Vitamin E	1.01
7. Vitamin E acetate	1.00
8. Vitamin K ₁	0.91



Organic Acids

Conditions

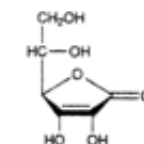
Column: Ace 5C18, 250 x 4.6mm
Part Number: ACE-121-2546
Eluent: Methanol – 50mM KH₂PO₄, pH 5.7 (30:70)
Flow Rate: 1.0ml/min
Temperature: 22°C
Detection: UV, 220nm

Compounds

1. L-Ascorbic acid
2. Maleic acid
3. Acetylsalicylic acid
4. Benzoic acid
5. Salicylic acid

USP Tailing Factor

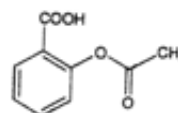
1.26
 1.21
 1.19
 1.22
 1.45



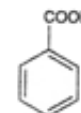
L-Ascorbic acid



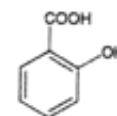
Maleic acid



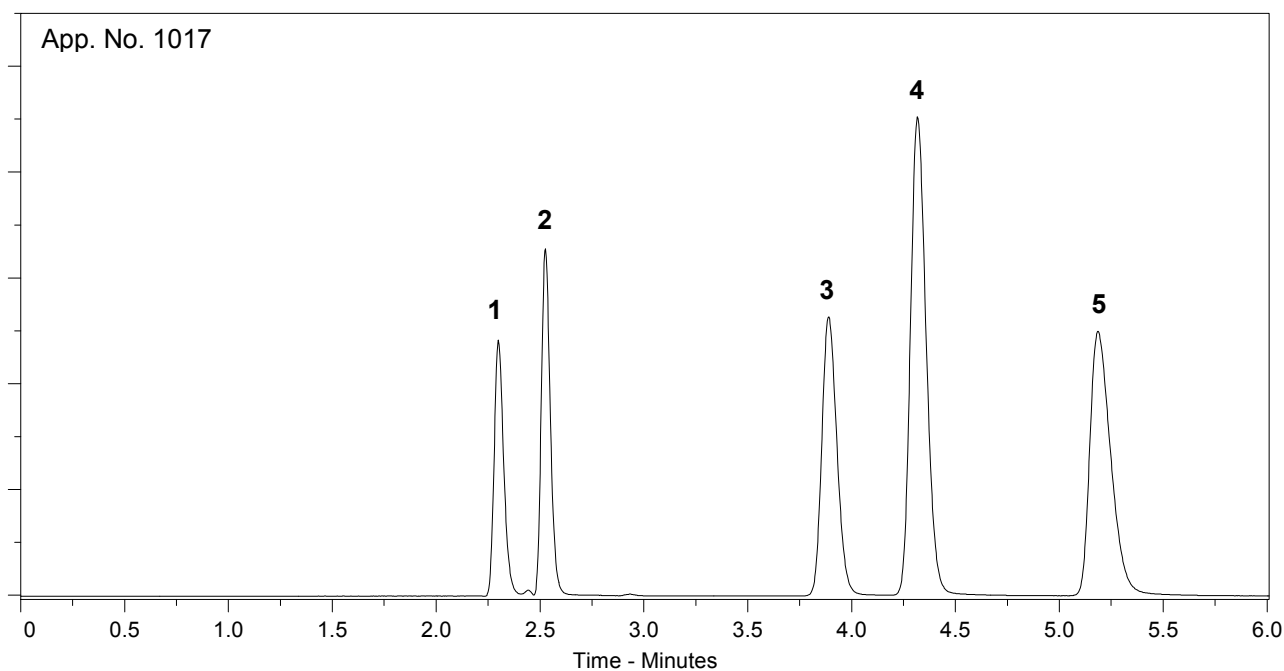
Acetylsalicylic acid



Benzoic acid



Salicylic acid



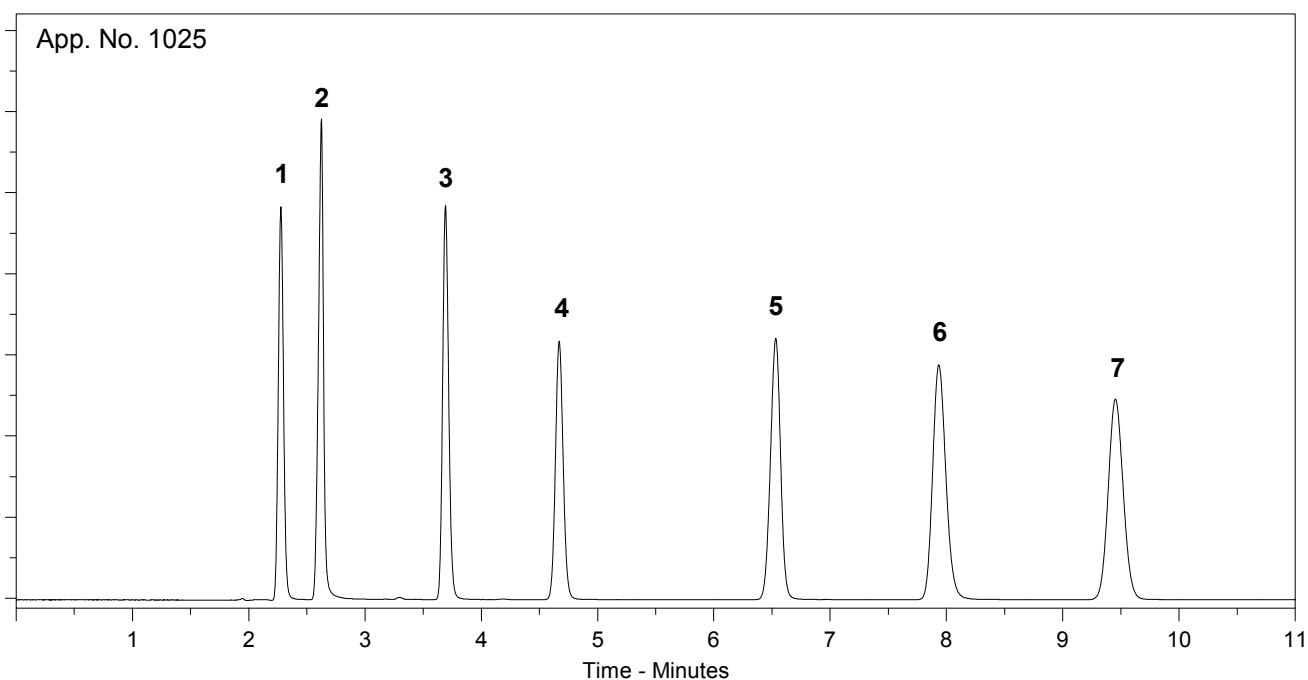
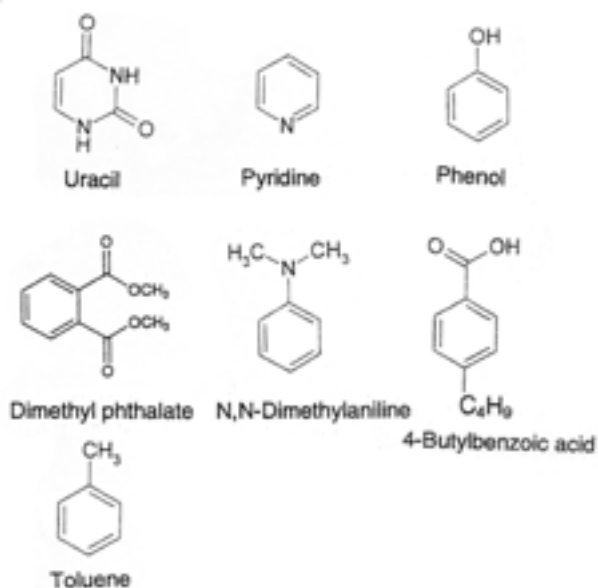
Selectivity Test Mix

Conditions

Column: Ace 5C18, 250 x 4.6mm
Part Number: ACE-121-2546
Eluent: Acetonitrile – 50mM KH₂PO₄, pH 3.2 (60:40)
Flow Rate: 1.0ml/min
Temperature: Ambient
Detection: UV, 254nm

Compounds USP Tailing Factor

Compounds	USP Tailing Factor
1. Uracil	1.08
2. Pyridine	0.74
3. Phenol	1.20
4. Dimethyl phthalate	1.14
5. N,N-Dimethylaniline	0.90
6. 4-Butylbenzoic acid	1.24
7. Toluene	1.11



Water Soluble Vitamins - Gradient

Conditions

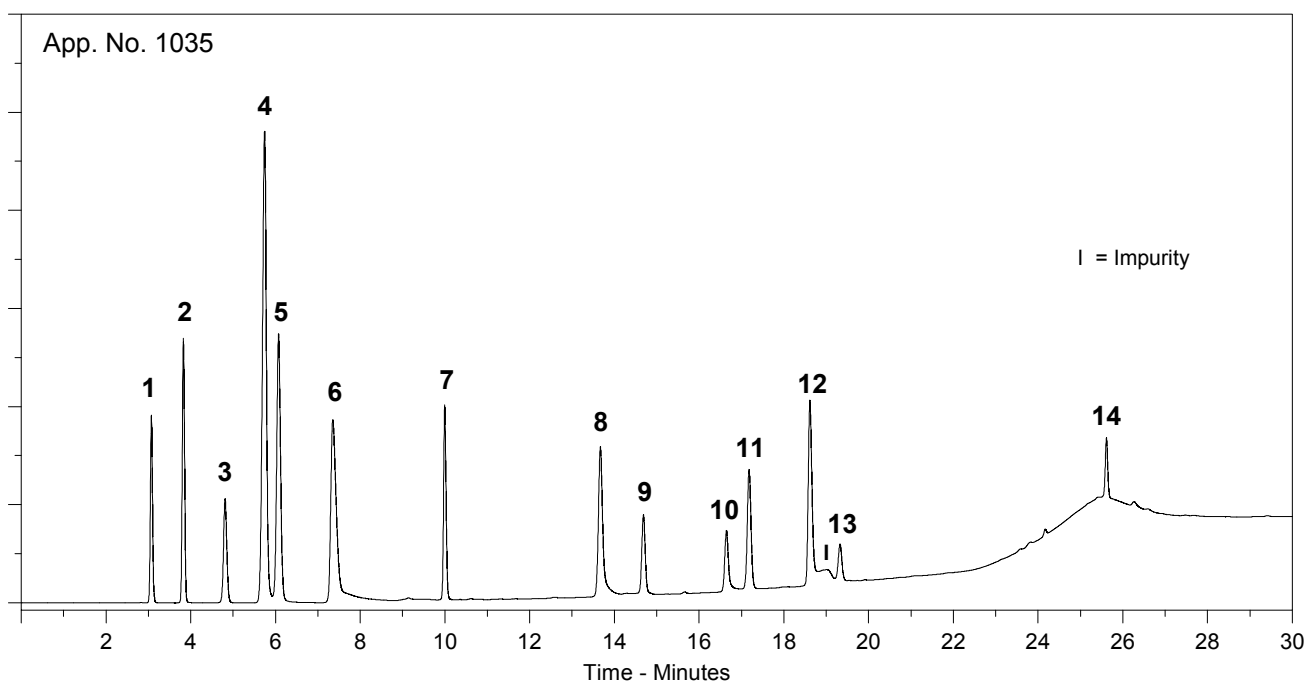
Column: Ace 5C8, 250 x 4.6mm
Part Number: ACE-122-2546
Eluent: A. 50mM KH₂PO₄, pH 2.5
 B. Methanol
Flow Rate: 1.0ml/min
Gradient:

T(mins)	%A	%B
0	100	0
3	100	0
16.5	55	45
19.5	20	80

Temperature: Ambient
Detection: UV, 205nm

Compounds

- | | |
|--|---|
| 1. Pyridoxamine | 8. p-Aminobenzoic acid |
| 2. Thiamine (Vitamin B ₁) | 9. Pantothenic acid (Vitamin B ₅) |
| 3. L-Ascorbic acid (Vitamin C) | 10. Folic acid (Vitamin M) |
| 4. Niacinamide (Vitamin B ₃) | 11. Cyanocobalamin (Vitamin B ₁₂) |
| 5. Nicotinic acid | 12. Riboflavin (Vitamin B ₂) |
| 6. Pyridoxal | 13. d-Biotin (Vitamin H) |
| 7. Pyridoxine | 14. Thiocctic acid |



Contact Details

This document contains only a sample of the vast library of applications on our database, for information on specific applications please contact ACE via the following email:

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