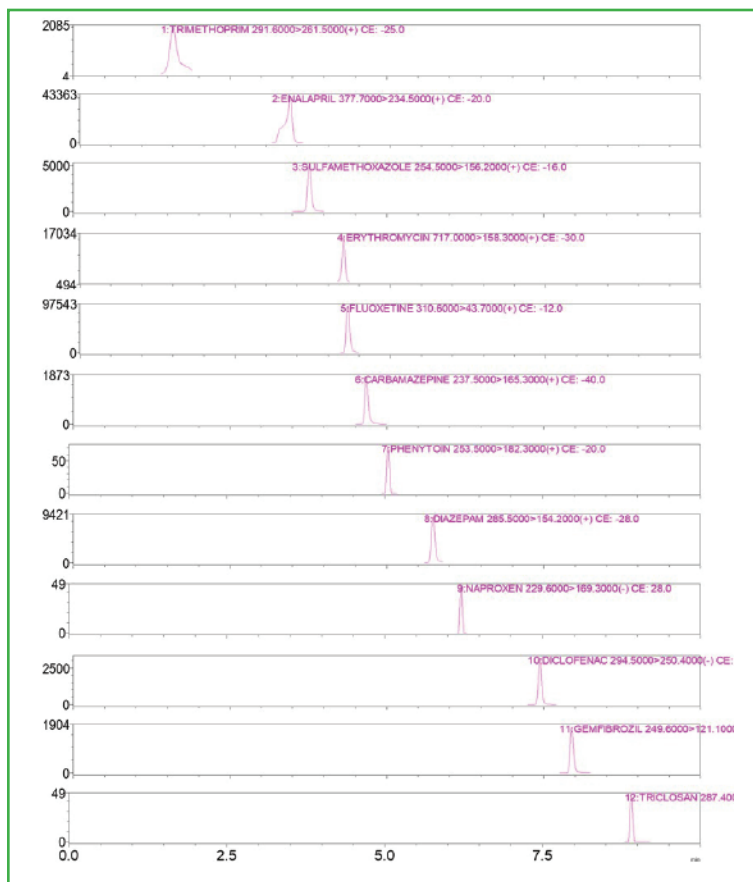




## LCMS of Pharmaceutical and Personal Care Products based on EPA 542

277-P



### PEAK IDENTITIES:

Peak #	Compound	Transition	ESI Mode	CE
1	Trimethoprim	291.60>261.50	ESI +	25
2	Enalapril	377.70>234.50	ESI +	20
3	Sulfamethoxazole	254.50>156.20	ESI +	16
4	Erythromycin	717.00>158.30	ESI +	30
5	Fluoxetine	310.60>43.70	ESI +	12
6	Carbamazepine	237.50>165.30	ESI +	40
7	Phenytoin	253.50>182.30	ESI +	20
8	Diazepam	285.50>154.20	ESI +	28
9	Naproxen	229.30>169.30	ESI -	28
10	Diclofenac	294.50>250.40	ESI -	10
11	Gemfibrozil	249.60>121.10	ESI -	10
12	Triclosan	287.40>34.40	ESI -	8

Pharmaceutical and personal care products (PPCPs) have been a growing concern to our environment. These products, which include over-the-counter medications, veterinary prescriptions, soaps, lotions, and even insect repellents have entered the environment through various sources including municipal wastewater, polluting ground water, and even drinking water.

Validated LC-MS methods have been completed in order to screen for these wide range of chemical compounds, however, the methods can further be optimized in order to achieve better resolution and selectivity. LC-MS method development was performed based on the EPA 542 PPCP method in order to achieve an improved chromatographic separation using a HALO® RP-Amide column.

### TEST CONDITIONS:

**Column:** HALO® RP-Amide, 2.7 µm, 2.1 x 100 mm

**Part Number:** 92812-607

**Mobile Phase A:** Water, 0.1% formic acid

**Mobile Phase B:** Acetonitrile, 0.1% formic acid

**Gradient:**

Time	%B
0.0	10
0.5	10
10.0	100
11.0	100

**Flow Rate:** 0.3 mL/min

**Pressure:** 213 bar

**Temperature:** 30 °C

**Detection:** UV 254 nm, VWD

**Injection Volume:** 1.0 µL

**Sample Solvent:** 50/50 Water/ Methanol

### MS Conditions:

Detection: (+/-) ESI MS/MS

LC System: Shimadzu Nexera X2

ESI LCMS system: Shimadzu LCMS-8040

Spray Voltage: 2.5 kV

Nebulizing gas: 2 L/min

Drying gas: 15 L/min

DL temp: 250 °C

Heat Block: 400 °C

