

# Organophosphorus (Isomeric) Flame Retardants in Water

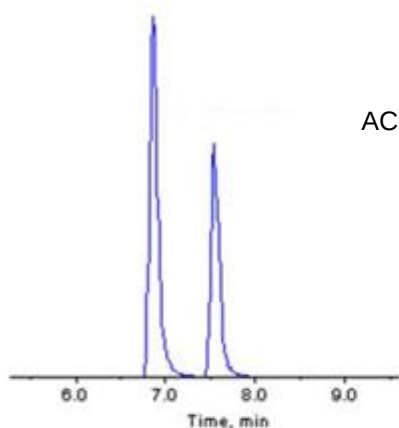
## Conditions

Column: ACE 3 C18  
ACE 3 C18-PFP  
Dimensions: 100 x 2.1 mm  
Part Number: ACE-111-1002, ACE-1110-1002  
Mobile Phase: A: 0.05 mM ammonium formate + 0.005% formic acid in H<sub>2</sub>O  
B: MeOH/MeCN (95:5 v/v)

| Time (mins) | %B  |
|-------------|-----|
| 0.1         | 50  |
| 12.0        | 90  |
| 13.0        | 100 |
| 15.0        | 100 |
| 15.1        | 50  |
| 20.0        | 50  |

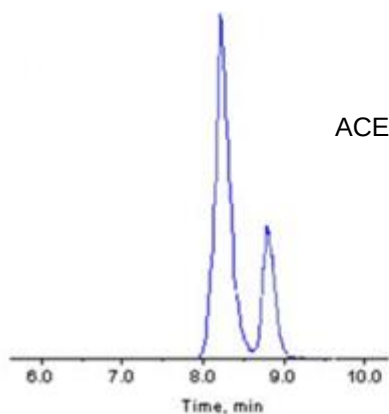
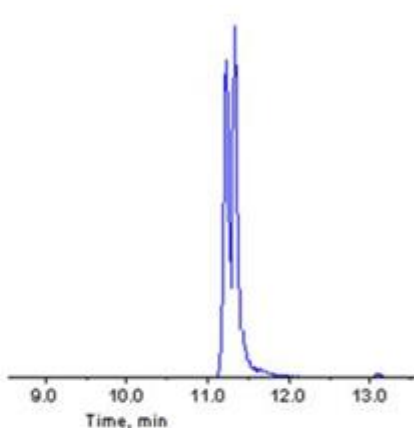
Flow Rate: 0.25 mL/min  
Injection: 80 µL  
Temperature: 25 °C  
Detection: MS/MS

TiPP and TPrP

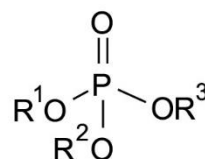
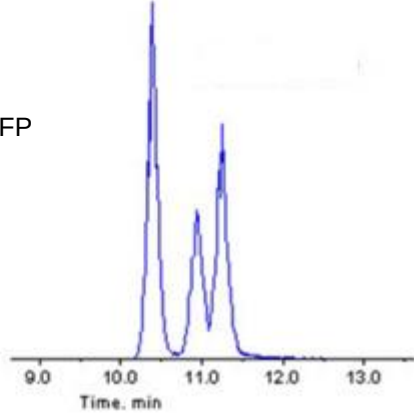


ACE C18

TOTP, TPTP and TMTP



ACE C18-PFP



Triiso-propyl phosphate (TiPP)  
(*m/z* 225 → 99)  
Tri-n-propyl phosphate (TPrP)  
(*m/z* 225 → 99)  
Tri-o-tolyl phosphate (TOTP)  
(*m/z* 369 → 91)  
Tri-p-tolyl phosphate (TPTP)  
(*m/z* 369 → 91)  
Tri-m-tolyl phosphate (TMTP)  
(*m/z* 369 → 91)