

Determination of Carbamate Insecticides by HPLC with post-column derivatization

Method VEV0012J
HPLC RP Mode

Column: Eurospher 100-5 C18, 250 x 4.6 mm ID

Order No. 25EE181ESJ

Phase: Eurospher 100-5 C18

Conditions: Eluent: A: Water
B: Methanol
Gradient: 0 – 0.5 min 82% A
0.5 – 29 min 82% – 30% A
29 – 31 min 100% B, column rinsing
31 – 36 min 82% A, re-equilibration
Flow rate: 1.0 ml/min
Temperature: 42 °C
Volume: 10 µl

Post-column derivatization two step reaction
1st Reactor (500 µl): 100 °C for first derivatization step with NaOH
2nd Reactor (150 µl): ambient with OPA and 2-mercaptoethanol derivative

Detection: Fluorescence: excitation 330 nm, emission 465 nm

Substances: Aldicarb, Aldicarb sulphoxide, Aldicarb sulphone, BDMC, Carbaryl, Carbofuran, 3-Hydroxycarbofuran, Methiocarb, Methomyl, 1-Naphtol, Oxamyl, Propoxur

Keywords: Carbamates, Insecticides

Chromatogram:

1. Aldicarb sulphoxide
2. Aldicarb sulphone
3. Oxamyl
4. Methomyl
5. 3-Hydroxycarbofuran
6. Aldicarb
7. Propoxur
8. Carbofuran
9. Carbaryl
10. 1- Naphtol
11. Methiocarb
12. BDMC

