

For Post-Column Analysis Using Fluorescence Detector

Some species of microscopic algae produce naturally occurring toxin referred to as biotoxin. Under certain water conditions, they “bloom” and produce high concentrations of the biotoxin. Paralytic shellfish toxins are biotoxins produced by the dinoflagellates and these toxins can concentrate in shellfish. Since the ingestion of contaminated shellfish can lead to paralytic shellfish poisoning, a life-threatening illness, the shellfish population should be regularly monitored for these toxins.

An HPLC method that utilizes post-column oxidation of the toxins under acidic conditions has been approved as a new official AOAC method – OMA 2011.02. Three groups of toxins are separated on a C18 column using a single step-gradient method. The products of post-column derivatization of the toxins can be detected with high sensitivity using a fluorescence detector. This can be carried out very easily using any HPLC (with quaternary pump), Pickering post-column instrument (Vector PCX or Onyx PCX), and Pickering Lab’s newest mobile phases and reagents:

| Catalog No. | Description |
|-------------|--|
| PSP-0001 | GTX & STX Mobile Phase A, 4 x 950 mL |
| PSP-0002 | GTX & STX Mobile Phase B, 4 x 950 mL |
| PSP-C003 | C-Toxins Mobile Phase A, 4 x 950 mL |
| PSP-C004 | C-Toxins Mobile Phase B, 4 x 950 mL |
| PSP-R1 | PSP Post-column Oxidant (2-part), 4 x 950 mL |
| PSP-R2 | PSP Post-column Acid, 950 mL |
| 0352-0080 | Paralytic Shellfish Toxins Analysis Kit |

