

RV: toluene (80%), dichlorvos (20%), and trace levels of the same impurities as in FS1 and FS3.

PS1: dichlorvos (>90%), and trace levels of the same impurities as in FS1 and FS3.

PS2: the same as PS1, spiked with octyl methylphosphonofluoridate (1%).

WS1: toluene (92%), dichlorvos (3%), dimethyl methylphosphonate (2%), dimethyl phosphite (1%), trimethyl phosphite (1%) and octyl methylphosphonofluoridate (1%).

WS2: sodium hydroxide, sodium salts of degradation/by-products of dichlorvos and octyl methylphosphonofluoridate (2 g of dichlorvos and 0.5 g of octyl methylphosphonofluoridate were added to 250 ml of 5% sodium hydroxide solution and refluxed).

RC: each charcoal sample (100 mg) was loaded with 50 µl of a standard solution containing the following components (mg/ml): toluene 740, dichlorvos 110, octyl methylphosphonofluoridate 50, dimethyl methylphosphonate 9, dimethyl phosphite 5, and trimethyl phosphite 5.

Samples were packed in small sealed glass tubes wrapped individually in plastic film. The sample tubes were then securely housed in a diecast alloy box, which was fully sealed with silicone sealant. No attempts were made to refrigerate the samples during transportation.

The packages were coded in the Embassy of Finland in Canberra before delivery to respective Embassies.

4. Analytical methods

The main analytical methods used in the exercise turned out to be gas chromatography - mass spectrometry (GC-MS) together with nuclear magnetic resonance spectrometry (NMR) and infrared spectrometry (IR), mostly GC-FTIR. Many laboratories used gas chromatography with phosphorus-selective detectors to confirm the results obtained with mass spectrometry. Three laboratories used liquid chromatography (LC), one laboratory used liquid chromatography - mass spectrometry (TSP-LC-MS) and one laboratory used ion chromatography. One laboratory tested the potential of a mobile mass spectrometer and a further participant used retention spectrometry (RS). One laboratory used