

elucidation only. In this respect the isomeric chemicals posed a particular problem since complete analysis would have required solving the detailed structures of the isomeric compounds. Some laboratories listed chemicals solely on the basis of electron ionization spectra after comparison of the recorded spectra with those in commercial libraries.

Two laboratories used infrared spectra of the sample extracts without separating the components by gas chromatography to confirm identifications of the main constituents in the samples. One laboratory made these type of determinations having first recorded the spectra of main components by GC-FTIR.

These differences in the criteria affected the number of reported chemicals and led to a very large number of chemicals. In addition, like in the previous test, naming of the chemicals was not always quite clear and, in the absence of structural formula or CAS numbers, led to a considerable job for the coordinating laboratory.

Some laboratories reported having first monitored the absence of the known CW agents in Schedule 1 and, only afterwards, having continued with the analyses by identification of other scheduled compounds. Some laboratories reported monitoring also of chemicals in schedules 2 and 3 while some laboratories concentrated only in phosphorus-containing chemicals as they seemed to be the essential ones on the basis of gas chromatograms recorded with phosphorus-selective detectors. While the main emphasis in identification was on scheduled chemicals, some laboratories used much effort in identifying as many organic chemicals as possible. This difference in the approaches may explain the detection of phosgene by two laboratories only.

This test showed that most laboratories have sophisticated equipment and skills suitable for identification of known compounds and structure elucidation of unknown compounds in trace quantities. However, in the draft rolling text there is a clear preference for on-site analyses over off-site analyses especially during inspections to chemical industry. Off-site analyses are considered important mainly for confirmatory purposes i.e. after suspect samples have been identified on-site. Therefore, the results of this test have to be evaluated