C 5.1 The sample

The following types of sample can be distinguished:

1. raw materials
2. end products
3. intermediate products
4. reactive mixtures
5. waste material.

In the case of raw materials and end products and usually also in the case of intermediate products, we are dealing with pure chemicals which can usually be analysed quickly in accordance with standardised methods. We have to assume that any impurities present do not adversely affect the chosen method of analysis.

In the case of reactive mixtures and waste material, we are dealing with mixtures which often require preparatory treatment prior to analysis. The types of pretreatment include chemical derivation reactions and separation techniques. In the case of waste material the concentrations may be very low, a fact which can add to the difficulty of analysing the material. In such cases it is not possible to employ universally applicable, standardised methods of analysis, since the sample matrix differs according to the production process.

C 5.2 Analysis

The choice of analytical method is determined by the type of sample (see above), as well as by the purpose of verification. The purpose of verification can be either of the following:

a. to confirm the presence of a declared product or precursor (Schedule [2]); or
b. to detect non-declared scheduled chemicals.

In the case of a, samples of raw materials and end or intermediate products should display the same chemical analytical properties as those of declared standard/reference substances, which can usually be determined directly and quickly using standardised methods.

In the case of b, the method of analysis will be more comprehensive and complicated (at least with reactive mixtures and waste material), since detection and identification relate to the possible presence of a component from a large group of substances in Schedules [1], [2] and [3]; indeed, in these cases it may prove impossible to use standardised methods without adapting them appropriately