



Laboratory Waste

Module 1



Health & Safety
Essentials

Registered charity number 207890

Introduction and legal framework

The management of waste covers a wide scope; from generation and identification through collection, storage and classification to transportation, treatment and disposal.

Eliminating waste at source is the ultimate goal of waste management; however this is not always practical or even possible. Consequently, a 'waste hierarchy' has been developed that focuses resources on elimination and minimisation as a first choice, followed by re-using, recycling and recovering as a secondary way of avoiding the final option, disposal.

The waste hierarchy is:

- AVOID
- ELIMINATE
- MINIMISE
- RE-USE
- RECYCLE
- DISPOSAL

Here we will discuss the wastes that are produced in the lab that cannot be re-used as they are, and hence need to be re-processed or sent for disposal. We will focus on the liquid and solid chemical wastes that are generated by laboratory activities but examples of other materials will be used as a way of explaining alternative options.

Much of the waste generated by the work undertaken in chemical laboratories will be classified as 'hazardous waste' due to its physico-chemical properties. The consequence is that a far more stringent regulatory regime will apply and additional care is required by lab staff.

Whilst waste is not the intended outcome from working in a laboratory, its correct and careful management is just as important as the work that generated it.

Legal Framework

The regulatory framework focuses the duties of everyone in the chain of ownership of the waste, which is seen as everyone from the waste producer, importer, collector / transporter, broker / dealer to persons treating or otherwise disposing of the waste.

When the release of waste has caused human or environmental harm, the legal case that follows usually traces the failing to one or more people in the chain of ownership that have failed in one or more of their duties.

