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## Overview

This standard covers the competences you need to carry out sampling operations for scientific or technical tests in accordance with approved procedures and practices.

You will be required to demonstrate that you have the correct equipment and materials for the sampling process. You will ensure that samples are identified and labelled correctly in accordance with workplace procedures.

The activity is likely to be undertaken by someone in a science related work setting, including individuals working in hospitals, scientific laboratories, schools and universities.

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## Performance criteria

- You must be able to:*
- P1 ensure that your work is carried out in accordance with workplace procedures
  - P2 use safe practices and the appropriate personal protection equipment (PPE) when doing scientific or technical activities
  - P3 ensure that the correct equipment and materials for the sampling process are available for use
  - P4 collect samples in the parameters specified in the standard operating procedure
  - P5 label and identify collected samples correctly
  - P6 maintain the condition of the samples and store in the correct location
  - P7 communicate the required information laboratory activities to authorised people in accordance with departmental and organisational procedures

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## Knowledge and understanding

*You need to know and understand:*

- K1 the health and safety requirements of the area in which you are carrying out the scientific or technical activities
- K2 the implications of not taking account of legislation, regulations, standards and guidelines when conducting scientific or technical activities
- K3 the scientific or technical techniques and processes you must use correctly in the workplace.
- K4 the importance of wearing protective clothing, gloves and eye protection for scientific or technical activities
- K5 the importance of correct identification, and any unique workplace coding system
- K6 the lines of communication and responsibilities in your department, and their links with the rest of the organisation
- K7 the limits of your own authority and to whom you should report if you have problems that you cannot resolve
- K8 the sampling methods and procedures used in the environment where they are taken
- K9 the range of equipment and materials used for sampling in the environment where they are taken
- K10 the documentation and labelling systems that should be used to ensure sample traceability after sampling
- K11 the methods used for keeping records of sampling operations, and why this is important
- K12 the principles and techniques of maintaining the sample integrity following collection
- K13 how to identify defective sampling equipment, and the actions to be taken
- K14 the methods used for the handling, storage and disposal of materials
- K15 the materials and methods used in the sampling process

## Scope/range

1. collect samples following all of the following operations:
  - 1.1 adhering to procedures or systems in place for risk assessment, COSHH, personal protective equipment and other relevant safety regulations
  - 1.2 checking that all the equipment is in a safe and usable working condition (such as undamaged, safety devices in place and operational)
  - 1.3 ensuring that sufficient quantities of all required materials are obtained
  - 1.4 obtaining all the necessary data, documentation and specifications for the sampling process
  - 1.5 collecting and labelling samples in the required quantities
  - 1.6 cleaning/disposing of sampling equipment and materials appropriately
  - 1.7 ensuring that the work area is clear and tidy, and that waste is disposed of in the correct manner
  - 1.8 ensuring that safe working practices and procedures are applied at all times
  
2. collect samples using five of the following parameters:
  - 2.1 location for sampling
  - 2.2 sampling access points
  - 2.3 sampling duration
  - 2.4 sample cycle time
  - 2.5 sampling frequency
  - 2.6 other (please specify)
  
3. maintain the condition of samples by two of the following methods:
  - 3.1 preservation
  - 3.2 aseptic container
  - 3.3 transportation
  - 3.4 other (please specify)
  
4. record and communicate details of the work done, to the appropriate people, using:
  - 4.1 verbal report plus one method from the following:
  - 4.2 written or typed report
  - 4.3 computer-based record
  - 4.4 specific workplace documentation
  - 4.5 electronic mail

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