

1. TITLE OF THE CERTIFICATE (ES)

**Certificado de Profesionalidad de nivel 3 en
QUILO108 ANÁLISIS QUÍMICO**

2. TRANSLATED TITLE OF THE CERTIFICATE (EN)

**Professional Certificate Level 3 in
QUILO108 CHEMICAL ANALYSIS
(This translation has no legal status)**

3. PROFILE OF SKILLS AND COMPETENCES

The holder of this certificate will have acquired the **general competence** to organise and apply techniques and methods of chemical and instrumental analysis of materials and products, aimed at controlling quality and research; acting under standards of good laboratory practice and personal and environment safety. This general competence is divided into the following **skills units** (UC):

- Organise and manage laboratory activity, applying specific procedures and standards (UC0052_3).
- Arrange the sampling plan and take samples (UC0053_3).
- Carry out analysis by chemical means, evaluating and informing of the results (UC0341_3).
- Apply instrumental techniques for chemical analysis, evaluating and informing of the results (UC0342_3).

The professional skills are acquired through the **learning outcomes** defined within the related Training Modules (MF):

- Quality in the laboratory (MF0052_3).
- Sampling for tests and analyses (MF0053_3).
- Methods of chemical analysis (MF0341_3).
- Instrumental methods of chemical analysis (MF0342_3).
- Practical training at the workplace in Chemical Analysis (MP0026)

(See legal basis for all learning outcomes information acquired by the holder of this Certificate in each MF).

As a reference the learning outcomes include in the Practical training at the workplace that complete and reinforce the learning outcomes acquired in the other training modules, are:

- Interpret and apply the regulations referring to good laboratory practice, health and safety and environmental control, entering the results in the planned digital format.
- Take samples and transfer them in conditions that guarantee their representative nature and prevent cross-contamination.
- Carry out quantitative chemical analysis using instrumental means and the appropriate analytical techniques and complying with the principles of good laboratory practice.
- Evaluate the validity of the results obtained in the analysis, interpreting the records and informing of the results.
- Apply techniques that provide qualitative evidence of chemical properties, the limits of detection, interferences, the matrices in which they are located and the precise physico-chemical conditions.
- Develop activities related to teamwork.
- Take part in the company's working processes, following the rules and instructions established at the workplace.

4. RANGE OF OCCUPATIONS ACCESSIBLE TO THE HOLDER OF THIS CERTIFICATE

The holder of this certificate may work as an analyst in companies or laboratories in sectors in which there has to be chemical and instrumental analysis to check the levels of quality of samples or analyse and research new analytical procedures to respond to new situations, or improve the efficiency and/or effectiveness of current procedures. The holder may work in the chemical industry, pharmaceutical industry, agricultural and food industry, environmental industry, processing industries, public or private laboratories, and in general all sectors where chemical evaluation of raw materials, natural resources and/or products derived from different processes are necessary or essential for their business. The most pertinent occupations and positions are:

- Industrial chemical laboratory analyst.
- Agricultural and food industry laboratory analyst.
- Raw material and finished material analyst.
- Environmental sector laboratory analyst.
- Processing industry laboratory analyst.
- Pharmaceutical industry laboratory analyst.
- Educational (university) and research centre laboratory analyst.
- Industrial chemical laboratory technician.
- Quality control technician in a variety of manufacturing industries (except glass).

5. OFFICIAL BASIS OF THE CERTIFICATE

Name and status of the national/regional authority providing accreditation/recognition of the certificate

The Ministry of Employment and Social Security or the corresponding autonomous regional administration within the scope of its competence, in the name of the King. The certificate is valid throughout Spain.

Level of the certificate

The Professional Certificate Level 3 of the National Repertoire of Professional Certificates corresponds to level 4 of the International Standard Classification of Education (ISCED-P 2011).

The European Qualification Framework (EQF) level:

Grading scale/Pass requirements

The grading scale and pass level of the training modules are expressed on a scale of 0 to 10. The minimum score for a pass is 5 in every training module including a pass in the practical training at the workplace module.

The grading system is as follows:

- FAIL: 0 to 4.9
- PASS-SATISFACTORY: 5 to 6.9
- PASS-GOOD: 7 to 8.9
- PASS-EXCELLENT: 9 to 10

Access to next level of education/training

This Professional Certificate Level 3 gives access to Professional Certificate Level 3 within the same professional area and family.

For validation purposes, the educational authorities will recognise the professional module or modules of the VET diplomas corresponding to the skills units included in the training modules of this certificate.

Legal basis

Royal Decree 1374/2008 of 1 August, establishing two professional certificates in the professional family Chemistry, which are included in the National Repertoire of Professional Certificates. (Appendix I, Code: QUIL0108).

Amended by Royal Decree 623/2013, of 2 August, establishing two professional the professional family Chemistry, which are included in the National Repertoire of Professional Certificates and actualization of the professional certificates in annex I, II, III y IV Royal Decree 1970/2008 of 28 November.

6. OFFICIALLY RECOGNISED WAYS OF ACQUIRING THE CERTIFICATE

This certificate may be acquired by:

1. Training: Completion with a pass grade of the face-to-face or online training programme.
2. Recognition of the professional skills acquired through professional experience or non-formal training (prior learning): Completion of a process of skills evaluation and accreditation in all the skills units making up the professional certificate.
3. Dual training: Completion of a training and apprenticeship contract, which may range from 1 year (or 6 months, if stipulated as such in the collective agreement) to 3 years, during which effective working time is combined with time dedicated to training under the training programme for the professional certificate.

The training method (number 1 above) requires successful completion of the training modules and the practical training at the workplace:

Description of vocational training received	Percentage of total programme (%)	Duration (hours)
Training modules	83	570
Practical training at the workplace	17	120
Total duration of training leading to the certificate		690

Entry/access requirements:

- *Bachiller* Diploma (upper secondary education); or
- Professional Certificate Level 2 in the same professional area.
- If neither of the above or higher certifications are held, a pass in the key skills tests.

Additional information: Professional certificates are instruments for official accreditation of the professional qualifications in the National Catalogue of Professional Qualifications for all economic activities, within the scope of the labour administration. The National Repertoire of Professional Certificates is divided into three qualification levels (Level 1, Level 2 and Level 3), and by sectors into 26 professional families and 102 professional areas. More information is available at: www.sepe.es

National Europass Centre: www.oapee.es

(*) **Explanatory note:** This document is designed to provide additional information about the specified certificate, but has no legal status in itself. The format of the description is based on the following texts: Council Resolution 93/C 49/01 of 3 December 1992 on the transparency of qualifications; Council Resolution 96/C 224/04 of 15 July 1996 on the transparency of vocational training certificates; and Recommendation 2001/613/EC of the European Parliament and of the Council of 10 July 2001 on mobility within the Community for students, persons undergoing training, volunteers, teachers and trainers.

More information is available at: <http://europass.cedefop.eu.int>

Information on Professional Certificates of the Map of Qualifications and Vocational Training in Spain

