

Specification of Competency Standards
for the Testing, Inspection and Certification Industry
Unit of Competency

Functional Area - Testing Operations

Title	Apply extraction techniques to organic analysis
Code	105793L3
Range	This unit of competency (UoC) covers the abilities to apply suitable extraction techniques to extract analytes from samples to be ready and fit for organic analysis in testing laboratories.
Level	3
Credit	2 (For Reference Only)
Competency	<p>Performance Requirements</p> <p>1.Possess knowledge of extraction techniques</p> <ul style="list-style-type: none"> • Describe the theory and application of extraction efficiency. • Apply the working principles of various extraction techniques, e.g.: <ul style="list-style-type: none"> ○ liquid-liquid extraction, ○ continuous solid-liquid extraction such as Soxhlet extraction, ○ supercritical fluid extraction. • Describe the applications and limitations of various extraction techniques according to different characteristics of samples. • Describe the criteria for the selection of extracting fluids according to the sample nature. • Identify the equipment required for various types of extraction and describe the operations of equipment for conducting extraction procedures. <p>2.Apply appropriate extraction techniques on samples in accordance with test requirements</p> <ul style="list-style-type: none"> • Identify sample characteristics that may affect selection and application of extraction techniques. • Apply suitable extraction techniques with appropriate extracting fluid on the sample in accordance with test requirements and sample characteristics. • Extract and collect the analytes in a sample for organic analysis by carrying out the extraction procedures. <p>3.Exhibit professionalism</p> <ul style="list-style-type: none"> • Ensure the collected extract is ready and fit for organic analyses
Assessment Criteria	<p>The integrated outcome requirements of this UoC are the abilities to:</p> <ul style="list-style-type: none"> • carry out extraction procedures on the sample by applying suitable extraction techniques with appropriate extracting fluid according to the test requirements and sample characteristics, • extract and collect analytes ready and fit for organic analysis.
Remark	