



Accredited Africa Training Institute for Capacity Development

Unit FO409, Hatfield Plaza · 1122 Burnett St, Hatfield 0028 · Pretoria, Gauteng · South Africa

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COURSE BROCHURE

Explosives Environmental Testing And Results Interpretation Training

Manufacturing, Engineering and Technology / Manufacturing and Assembly

Unit Standard 116002 · NQF Level 4 · 8 Credits · 5 Days

COURSE OVERVIEW

This course equips learners with the knowledge and skills to conduct environmental testing of explosives in compliance with South African regulations and international standards. Participants will learn to interpret test results accurately, ensuring safe handling, storage, and transportation of explosives. The training aims to mitigate environmental risks and enhance workplace safety.

Category	Manufacturing, Engineering and Technology
Subfield	Manufacturing and Assembly
Unit Standard	116002
Accreditation	SAQA Accredited · NQF Level 4 · 8 Credits
Duration	5 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Apply environmental testing procedures for explosives according to SANS and ISO standards.
- Analyze test results to determine the stability and sensitivity of explosive materials.
- Evaluate environmental factors affecting explosive performance and safety.
- Implement corrective actions based on test result interpretation.
- Demonstrate proper documentation and reporting of environmental test outcomes.
- Design sampling plans for explosives environmental testing in various contexts.

WHO SHOULD ATTEND

- This course is designed for explosives technicians, safety officers, environmental health practitioners, and quality assurance personnel involved in the testing, handling, or regulation of explosives in mining, construction, and defense sectors.

COURSE OUTLINE

Day 1: Introduction to Explosives and Environmental Testing

- Overview of explosive types: primary, secondary, and tertiary.
- Chemical properties and stability of common explosives.
- Introduction to environmental testing: matrices (soil, water, air) and contaminants.
- Regulatory framework: SAQA, SANS, and international standards.
- Health and safety considerations in handling explosive materials.

Day 2: Sampling Techniques and Field Methods

- Sampling strategies: grid, random, and judgmental sampling.
- Equipment for soil, water, and air sampling.
- Sample preservation, storage, and transport.
- Field screening techniques: colorimetric tests, ion mobility spectrometry.
- Quality assurance/quality control (QA/QC) in field sampling.

Day 3: Laboratory Analytical Methods

- Sample preparation: extraction, clean-up, and concentration.
- Gas chromatography (GC) and high-performance liquid chromatography (HPLC).
- Mass spectrometry (MS) and tandem MS (MS/MS).
- Detection limits, calibration curves, and method validation.
- Laboratory safety and waste management.

Day 4: Data Interpretation and Reporting

- Qualitative and quantitative data analysis.
- Statistical methods: mean, standard deviation, confidence intervals.
- Identification of false positives/negatives and interferences.
- Reporting formats: data tables, graphs, and narrative conclusions.
- Case studies: interpreting results from contaminated sites.

Day 5: Advanced Applications and Practical Integration

- Advanced techniques: isotope ratio mass spectrometry, sensor networks.
- Environmental fate and transport of explosives.
- Risk assessment and remediation strategies.
- Practical exercise: complete a mock testing project from sampling to report.
- Review of unit standard outcomes and final assessment.

ASSESSMENT & CERTIFICATION

Delegates are assessed through exercises and a final test. A mark of **50% or above** earns an **AATICD Certificate of Completion**, issued digitally with a unique verification code. This course carries **8 NQF credits** at **NQF Level 4**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 23,000.00	R 23,000.00
1	In-House	R 29,900.00	R 29,900.00
1	On-Campus (Pretoria)	R 34,500.00	R 34,500.00

UPCOMING SESSIONS

Start	End	Method	Venue
10 Aug 2026	14 Aug 2026	On-Campus	Durban, South Africa
10 Aug 2026	14 Aug 2026	On-Campus	Abu Dhabi, UAE
10 Aug 2026	14 Aug 2026	On-Campus	Pretoria, South Africa
10 Aug 2026	14 Aug 2026	On-Campus	Dubai, UAE
10 Aug 2026	14 Aug 2026	On-Campus	Cape Town, South Africa
10 Aug 2026	14 Aug 2026	On-Campus	Mauritius
17 Aug 2026	21 Aug 2026	On-Campus	Dubai, UAE
17 Aug 2026	21 Aug 2026	On-Campus	Pretoria, South Africa

Contact us if no suitable date is listed – on-demand sessions can be arranged for groups.

HOW TO GET A QUOTE OR APPLY

- 1. Get an instant quotation online:** visit www.aaticd.co.za, open the page for this course (Unit Standard 116002) and click **Get A Quote / Apply**. Select your training method and number of delegates – your quotation is generated immediately and emailed to you with the course brochure attached.
- 2. Apply by email:** send the course title, your preferred training method (Online, In-House or On-Campus Pretoria), the number of delegates and your preferred dates to apply@aaticd.co.za – our team will reply with a formal quotation.
- 3. Apply by phone or WhatsApp:** call +27 12 004 8389 or WhatsApp +27 65 077 6310 and we will prepare your quotation and reserve your seats.
- 4. Confirm your booking:** accept the quotation and settle the invoice. As soon as payment is confirmed your delegates are enrolled and receive their AATICD LMS login details by email, along with joining instructions for their chosen training method.

Group discounts apply automatically – the more delegates you enrol, the lower the price per delegate. No payment is required to request a quotation.

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