



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

Sulphurous Acid Preparation In Metallurgical Plants Training

Manufacturing, Engineering and Technology / Fabrication and Extraction

Unit Standard 110189 · NQF Level 2 · 4 Credits · 1 Day

COURSE OVERVIEW

This course equips learners with the theoretical and practical knowledge required to prepare sulphurous acid safely and efficiently in metallurgical plants. It covers the chemical principles, plant equipment, and standard operating procedures essential for producing sulphurous acid for use in mineral processing, particularly in the leaching and extraction of metals. Emphasis is placed on adhering to safety protocols and environmental regulations within the South African metallurgical industry.

Category	Manufacturing, Engineering and Technology
Subfield	Fabrication and Extraction
Unit Standard	110189
Accreditation	SAQA Accredited · NQF Level 2 · 4 Credits
Duration	1 day
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Apply fundamental chemical principles to describe the preparation of sulphurous acid from sulphur dioxide and water.
- Demonstrate the correct start-up, operation, and shutdown procedures for sulphurous acid preparation systems.
- Analyze process parameters such as temperature, pressure, and concentration to ensure efficient and safe production.
- Evaluate potential hazards associated with sulphurous acid preparation and implement appropriate control measures.
- Implement quality control procedures to verify the concentration and purity of the produced sulphurous acid.
- Comply with relevant health, safety, and environmental regulations during the preparation process.

WHO SHOULD ATTEND

- This training is designed for metallurgical process operators, plant technicians, and production supervisors working in mineral processing or hydrometallurgical plants where sulphurous acid is prepared and used.
- It is also suitable for safety officers and engineers involved in plant operations or process optimization.

COURSE OUTLINE

Day 1: Fundamentals of Sulphurous Acid Preparation in Metallurgy

- Introduction to sulphurous acid: properties, uses in metallurgy (e.g., leaching, pH control)
- Sources of SO₂: smelter off-gases, sulfur burning, or purchased gas
- Chemical principles: SO₂ + H₂O ⇌ H₂SO₃ equilibrium, factors affecting solubility
- Process equipment: absorption columns, scrubbers, piping, and storage tanks
- Safety protocols: toxic gas monitoring, PPE, emergency procedures
- Quality control: measuring acid concentration, pH, and impurities
- Environmental considerations: gas scrubbing, waste disposal
- Overview of plant layout and standard operating procedures

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 **4 NQF credits** at **NQF Level 2**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 12,800.00	R 12,800.00
1	In-House	R 16,600.00	R 16,600.00
1	On-Campus (Pretoria)	R 19,200.00	R 19,200.00

UPCOMING SESSIONS

Start	End	Method	Venue
31 Jul 2026	31 Jul 2026	On-Campus	Johannesburg, South Africa
03 Aug 2026	03 Aug 2026	On-Campus	Cape Town, South Africa
04 Aug 2026	04 Aug 2026	On-Campus	Dubai, UAE
05 Aug 2026	05 Aug 2026	On-Campus	Pretoria, South Africa
05 Aug 2026	05 Aug 2026	On-Campus	Lagos, Nigeria
06 Aug 2026	06 Aug 2026	On-Campus	Johannesburg, South Africa
07 Aug 2026	07 Aug 2026	On-Campus	Mauritius
10 Aug 2026	10 Aug 2026	On-Campus	Dubai, UAE

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 110189) 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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