PROCESS AND CHEMICAL ENGINEERING

Chemical Cleaning in Process Operations

3 day course Classroom, online or in-house

Course overview

Chemical cleaning restores heat transfer and removes deposits that no mechanical method can reach, and it does so by circulating aggressive chemistry through equipment you intend to keep. This course covers doing it safely and effectively. Delegates work through deposit identification, because the cleaning chemistry follows from what is actually there, solvent and inhibitor selection, and circulation, temperature and contact time. Passivation and neutralisation follow. The safety and environmental material is substantial: confined space, gas evolution, personal exposure and the disposal of spent solution. The course closes on verification, on protecting base metal from the cleaning itself, and on return to service.

What you will learn

- Identify a deposit and select chemistry that will actually remove it
- Select solvents and corrosion inhibitors for the base metal present
- Design circulation, temperature and contact time
- Carry out passivation and neutralisation
- Control the safety hazards including gas evolution and exposure
- Dispose of spent solution lawfully
- Verify cleanliness and return equipment to service safely

Who should attend

- Maintenance and turnaround engineers
- Process and utilities engineers
- Chemical cleaning contractors and supervisors
- HSE professionals supporting cleaning operations
- Inspection staff assessing cleaned equipment

Course outline

01 What chemical cleaning achieves that mechanical cannot
02 Deposit identification and analysis
03 Solvent selection and inhibition
04 Circulation, temperature and contact time
05 Passivation and neutralisation
06 Safety: confined space, gas evolution and exposure
07 Spent solution handling and disposal
08 Verification and return to service

Upcoming dates

Dates	Venue	Format	Fee per delegate
21 to 23 September 2026	Cape Town, South Africa	Classroom	R14,950
5 to 7 October 2026	Online	Online	R6,500
23 to 25 November 2026	Pretoria, South Africa	Classroom	R14,950
3 to 5 February 2027	Port Louis, Mauritius	Classroom	USD 995

Fees and how to register

This 3 day course is **R6,500** per delegate online, **R14,950** in the classroom in South Africa, Botswana, Namibia, Lesotho and Eswatini, and **USD 995** in the classroom elsewhere in Africa. In-house training is quotation on request. Book 2 or more delegates on this course and save 10%.

To register or request an in-house proposal, visit **www.afrisciencegroup.com**, email **info@afriscience.co.za**, or WhatsApp us on **+27 63 479 1136**.

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