

SSWOL06 Chemical Process Operator

Disclaimer

These Occupational Frameworks and Skill Profiles have been developed as workforce planning, occupational mapping and skills reference resources for the Australian textile, clothing and footwear (TCF) industry. They are intended to describe the typical functions, responsibilities, skills and capabilities associated with occupations across the industry.

These documents are not intended to replace or override industrial instruments or employment arrangements, including awards, enterprise agreements, employment contracts, position descriptions, classification structures, licensing or regulatory requirements, or other statutory obligations. Where differences arise, the relevant industrial, legislative or regulatory requirements take precedence. The Skill Profiles should be used as complementary reference documents to support workforce planning, career development, training and skills recognition.

1. Job role

TCF sub-sector	Wool Scouring
Functional area	Production Operations
Job role	SSWOL06 Chemical Process Operator
Job role description	Operates and monitors chemical dosing, treatment and recovery systems within wool scouring operations to ensure effective cleaning, grease removal and environmental compliance. In the Australian wool scouring sector—characterised by high mechanisation and environmentally regulated processes—the Chemical Process Operator manages the use of detergents, alkalis and other chemicals used in scouring, as well as supporting grease recovery and effluent treatment processes. The role is emerging due to increasing environmental regulation and process optimisation requirements, and involves close coordination with plant operators, maintenance teams and environmental compliance functions to ensure safe, efficient and compliant operations.
Performance expectations	• Maintaining accurate chemical dosing and process balance. • Ensuring effective removal of grease and contaminants. • Supporting stable scouring process performance. • Minimising chemical waste and environmental impact. • Monitoring and controlling effluent quality. • Operating systems safely and in compliance with regulations. • Recording chemical usage and process data accurately. • Following WHS, environmental and operational procedures.
Specialisation	Chemical dosing systems, grease recovery, effluent treatment processes, automated process control, sustainability and environmental compliance.
Application in other TCF sectors	• Chemical and process manufacturing. • Water and wastewater treatment. • Food and agricultural processing.

	• Industrial cleaning and separation processes. • Environmental management operations.
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2. Key tasks and critical work functions

Key tasks	• Preparing and dosing chemicals into scouring systems. • Monitoring process parameters (pH, temperature, concentration). • Adjusting chemical levels to maintain process stability. • Supporting grease recovery operations. • Monitoring effluent discharge and treatment systems. • Recording chemical usage and process data. • Inspecting systems for leaks, faults or inefficiencies. • Maintaining chemical storage and handling areas.
Critical work functions	• Ensuring optimal chemical balance in scouring processes. • Maintaining fibre quality through correct processing conditions. • Supporting environmental compliance and waste management. • Preventing chemical overuse and process instability. • Ensuring safe handling of hazardous substances. • Supporting efficient plant operation and sustainability. • Maintaining traceability and documentation.

3. Technical skills

Chemical dosing	Managing and applying process chemicals.
Process monitoring	Tracking pH, temperature and concentrations.
Effluent management	Monitoring and supporting wastewater treatment.
Grease recovery	Operating recovery and separation systems.
Safety procedures	Handling hazardous chemicals safely.
Equipment operation	Using pumps, tanks and dosing systems.
Basic troubleshooting	Identifying and resolving process issues.
Production documentation	Recording chemical and process data.

4. Generic Skills

Attention to detail	Ensuring precise chemical control.
Problem solving	Responding to process and environmental issues.
Time management	Maintaining continuous process flow.
Technical aptitude	Working with automated systems.
Communication	Coordinating with operators and compliance teams.

Teamwork	Working in integrated plant environments.
Safety awareness	Applying WHS and chemical safety practices.

5. Emerging skills

Emerging skills	- Advanced process automation and supervisory control and data acquisition (SCADA) integration. - Sustainable chemical usage and green chemistry practices. - Data-driven process optimisation and performance improvement. - Advanced effluent treatment and water management technologies. - Environmental compliance, monitoring and reporting systems. - Circular economy and waste recovery processes.
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6. VET Qualifications and Skill Sets

Entry-level preparation	MSL30122 Certificate III in Laboratory Skills or equivalent.
Advanced development	MSL50122 Diploma of Laboratory Technology or equivalent.

7. Job progression

Possible job progression	Process Worker → Chemical Process Operator → Senior Operator → Environmental or Production Supervisor.
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8. Classification

Australian Qualifications Framework	Level 2.
Australian Bureau of Statistics (ABS) Skill Levels	Skill Level 5.
Open Source Classification of Occupations for Australia (OSCA)	839199 Materials and chemicals process workers nec Chemical Process Operator – Wool Scouring / Process Industry.



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