

CS81 Laboratory Technician

1. Job role

TCF sub-sector	Cross sector
Job role	CS81 Laboratory Technician
Job role description	Conducts laboratory testing and analysis of fibres, yarns, fabrics and finished products to ensure compliance with quality, safety and performance standards. In the Australian TCF industry, the Laboratory Technician supports production and product development by performing standardised tests, analysing results and maintaining laboratory equipment. The role ensures materials meet specifications for strength, colourfastness, durability and other performance criteria. The technician works closely with production, R&D and quality teams to provide accurate data for decision-making and continuous improvement.
Performance expectations	• Conducting accurate and repeatable laboratory tests • Ensuring compliance with Australian and international standards • Maintaining calibration and condition of laboratory equipment • Recording and reporting test results accurately • Supporting quality assurance and product development • Identifying non-conformances and trends • Maintaining laboratory safety and procedures • Following WHS and quality standards
Specialisation	Textile testing, fibre analysis, colour testing, durability testing, compliance testing
Application in other TCF sectors	• Manufacturing and materials testing • Chemical and process industries • Food and agricultural testing • Environmental and compliance laboratories • Research and development environments

2. Key tasks and critical work functions

Key tasks	• Conducting standard laboratory tests on materials and products
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	• Preparing samples for testing • Operating and maintaining testing equipment • Recording and analysing test data • Reporting results to relevant teams • Ensuring compliance with testing standards • Maintaining laboratory cleanliness and safety • Supporting audits and quality reviews
Critical work functions	• Ensuring accuracy and reliability of test results • Supporting product quality and compliance • Identifying defects and performance issues • Maintaining consistent testing methodologies • Supporting data-driven decision-making • Ensuring laboratory safety and compliance • Maintaining traceability and documentation

3. Technical skills

Laboratory testing	Conducting textile and material tests
Sample preparation	Preparing and handling test samples
Equipment operation	Using laboratory instruments and tools
Data analysis	Interpreting test results
Standards compliance	Applying testing standards and methods
Calibration	Maintaining equipment accuracy
Documentation	Recording and reporting results
Quality control	Identifying non-conformances

4. Generic Skills

Attention to detail	Ensuring accuracy in testing and reporting
Analytical thinking	Interpreting results and trends
Problem solving	Identifying and resolving issues
Communication	Reporting findings clearly
Time management	Managing testing schedules
Teamwork	Working with production and QA teams
Safety awareness	Maintaining laboratory safety standards

5. Emerging skills

Emerging skills	• Advanced materials testing technologies • Digital laboratory management systems (LIMS) • Data analytics and predictive quality systems • Automation in laboratory testing • Sustainability and environmental testing • Integration with Industry 4.0 systems
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6. VET Qualifications and Skill Sets

Entry-level preparation	MSL40122 Certificate IV in Laboratory Techniques or equivalent qualification.
Advanced development	MSL50122 Diploma of Laboratory Technology or equivalent qualification or bachelor's degree in chemistry, chemical engineering or materials science

7. Job progression

Possible job progression	Laboratory Assistant → Laboratory Technician → Senior Technician → Quality Manager → Technical Manager
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8. Classification

Australian Qualifications Framework	Level 4-6
Australian Bureau of Statistics (ABS) Skill Levels	Skill Level 2-3
Open Source Classification of Occupations for Australia (OSCA)	Laboratory Technician / Quality Technician



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